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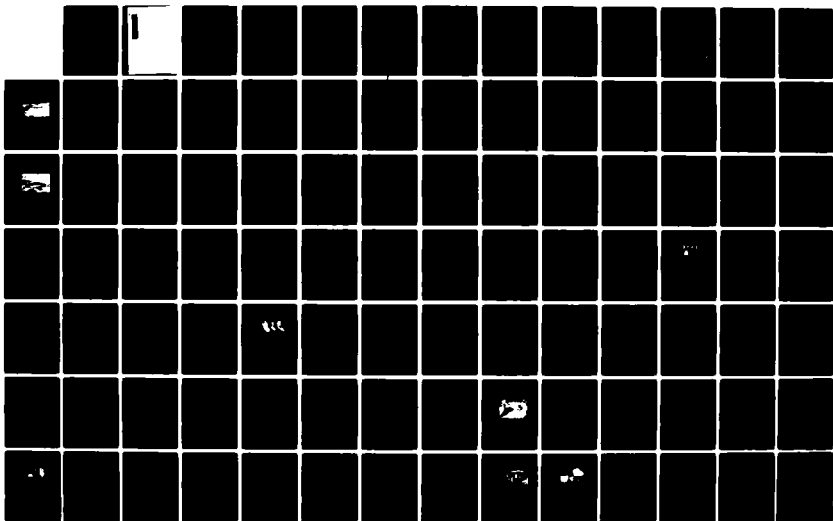
TRINIDAD RESERVOIR SALVAGE ARCHAEOLOGY 1972(U)
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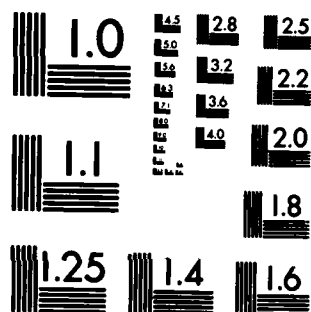
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15. Abstract (Limit 200 words)

The archeological research was designed to explore problems in an area poorly known archeologically. The philosophy and, where feasible, approach of the Southwestern Anthropological Research Group (SARG) was adapted to better facilitate this exploration. The major research question of SARG is "why are population aggregates located where they are?" with ancillary themes, "why do population aggregates differ in size, who do the locations differ through time and why does a single population aggregate grow or decrease in size?"

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Dr. Herbert W. Dick, Adams State College and formerly at Trinidad State Junior College, supplied the materials pertinent to the Running Pit House Site and TC:C9:2. Both sites were excavated under Dr. Dick's direction; neither under contractual obligation to Trinidad Junior College or National Park Service. Dr. Dick's lasting interest in Trinidad archaeology is appreciated.

Stewart Peckham, Museum of New Mexico Research Laboratory, Dr. James Gunnerson, Northern Illinois University, and Dr. Robert Bell, University of Oklahoma, have each generously identified ceramics from Trinidad Reservoir sites.

Support and assistance was provided by the National Park Service, Trinidad State Junior College, United States Army Corps

of Engineers and Clement Brothers Construction Company. Carl Falk, Chief, and Robert Nickel, both of the Midwest Archaeological Center, have provided notable aid. Dr. Thomas Sullivan, President, granted permission for Trinidad State Junior College to enter into the contractual agreement with the National Park Service for this archaeological salvage project for which I am principal investigator. Major Dennis Butler, Assistant Resident Engineer, Corps of Engineers, Trinidad field office, kept me informed of activities related to the Trinidad Dam and Reservoir Project. Edward Clement has been extremely cooperative in preserving several remaining archaeological sites by shunting his company's earth moving machines elsewhere.

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INTRODUCTION

The primary purpose of this report is to satisfy the conditions of Contract Number CX 6000-3-0003; a cooperative agreement between the National Park Service and Trinidad State Junior College. In large part, this involves the description of archaeological materials retrieved from within the boundaries of the Trinidad Reservoir project area during the 1972 field season and intermittently since then. The physical setting of this geographical region is described in greater detail than heretofore including the floral species in the project area today. TC:C9:2 and the Running Pits Site are reported here even though they were not excavated under National Park Service contract. An analysis of all human skeletal material from project area is included. In addition, the status of archaeology in this area is reviewed through the brief description of every known site and an interpretive summary of the aboriginal occupation of the reservoir area. This synthesis of data and its interpretation is advanced on an interim basis as the cultural details from several excavated, but unreported, sites have not been included. Further, hypotheses to be tested outside the confines of this small geographical area are advanced.

The archaeological research in the Trinidad Reservoir Project, under N.P.S. Contract Number CX 6000-3-0003, was designed to explore problems in an area poorly known archaeologically. The philosophy and, where feasible, approach of the Southwestern Anthropological Research Group (SARG) (Gumerman, ed. 1971) was

adapted to better facilitate this exploration. The major research question of SARG is "why are population aggregates located where they are?" with ancillary themes, "why do population aggregates differ in size, why do the locations differ through time and why does a single population aggregate (or individual site) grow or decrease in size?" (Gumerman 1971:4).

It was evident from the outset that the adoption of SARG research models would not answer any of these questions without a research project of longer duration and greater areal extent than ours entailed. Failure, however, to attempt to implement a research design would negate the spirit if not the intent of research. Such short sightedness could not further the aims of archaeological research no matter what approach taken or techniques employed. Thus, a research plan inspired by SARG was initiated with the realization that our limited project would not possess the attributes necessary for its full execution.

One of the limitations imposed upon our research was the relative lack of data on the aboriginal occupations of SE Colorado and NE New Mexico and where available, the data was largely unusable for comparative purposes. Available data from within the confines of the Trinidad Reservoir project area also exhibited this phenomenon. Large sections of the reservoir were resurveyed and site data recorded.

The ecological approach was furthered by dedicating the Trinidad Reservoir research to the proposition that the distribution of human populations is affected by biological transition zones; that the biological transition zones are also cultural transition zones (Gumerman and Johnson 1971). Obviously adequate testing

of these hypotheses is beyond the scope of the current research.

RESEARCH ACTIVITIES

The initial focus of research activity was the compilation of all data on every known aboriginal site in the project area. Early historic "Anglo" sites were noted but not included in the present analysis. The compiled information came from various sources on deposit at the Laboratory of Archaeology, Trinidad State Junior College, and included site survey cards, collected specimens, photographs, manuscripts (especially Dick 1963) and unrefined survey and excavation notes and maps by others. Additional information was solicited from archaeologists previously associated with Trinidad State Junior College which provided the raw data upon which the brief site reports for TC:C9:2 and the Running Pits Site (this report) is based. All data was refined and particular emphasis was placed upon the site attributes which would enable cultural and temporal assignment and activities carried on at the site locale.

The initial 1972 field activities were limited to a resurvey of a sizeable proportion of the project area with a twofold purpose: (1) relocate sites for verification of data and possible collection of new data and (2) locate sites which were previously unrecorded, especially non-structure or limited activity sites. The results of the resurvey were incorporated with the previously compiled site data and are presented here in the chapter entitled TRINIDAD RESERVOIR SITES.

Other 1972 fieldwork included the identification and distribution of all flora found in the project area and the excavation of two habitation structures with testing of adjacent locales for

possibly associated limited activity areas. The two sites were selected for excavation because pre-1972 data indicated they each belonged to the time period of greatest aboriginal occupation of the project area, each was a habitation site (and hence potentially possessed evidence of the full range of cultural activities), and the fact that they were architecturally dissimilar (stone masonry versus jacal) despite artifactual similarities (especially ceramics). The recovery techniques of waterscreening and flotation were utilized in an attempt to retrieve ecofactual data not previously found in project area sites.

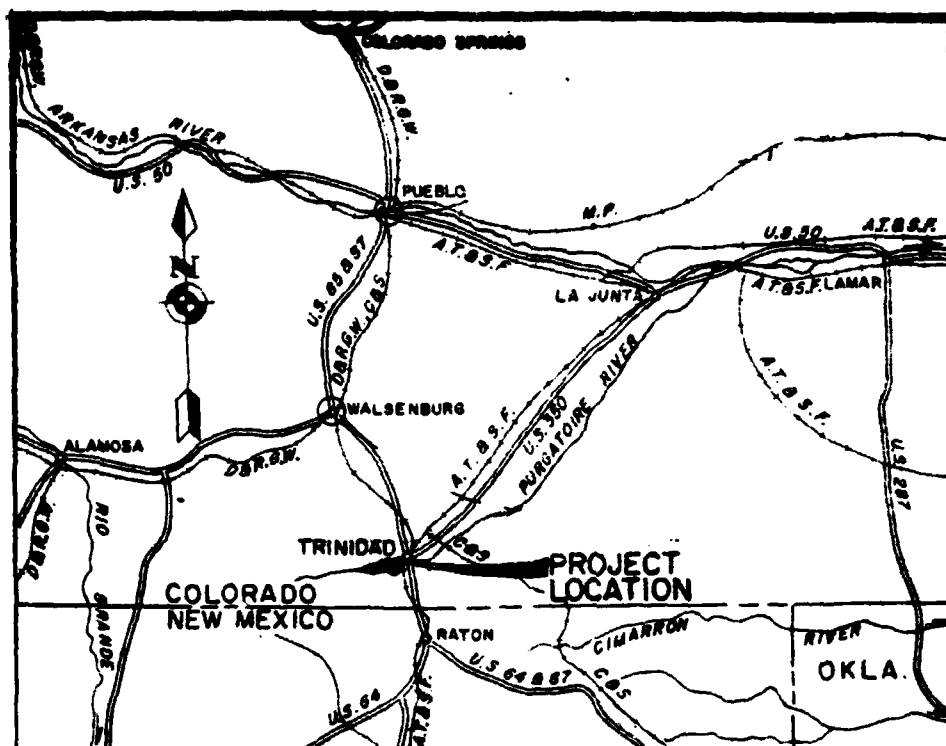
A BRIEF HISTORY OF ARCHAEOLOGICAL RESEARCH

IN THE

TRINIDAD RESERVOIR PROJECT AREA

From 1951 to the present, a succession of five archaeologists associated with Trinidad State Junior College have done archaeological research in southeastern Colorado and, to a lesser extent, in northeastern New Mexico. The archaeologists and the academic years of employment follow: Haldon Chase (1951-1953), Herbert W. Dick (1953-1962), Galen R. Baker (1962-1966), Edwin L. Guiling (1966-1968) and Stephen K. Ireland (1968 to present). Much of the research has been within the boundaries of the Trinidad Reservoir project. This small region of the upper Purgatoire River Valley has been surveyed under the direction of Dick, Baker and Ireland. Until now, the preliminary report by Dick (1963) was the only written result of a survey. Excavation and/or testing of sites within project boundaries was accomplished by each of the five archaeologists, the most recent three while under cooperative National Park Service-Trinidad State Junior College agreements. Detailed site reports are yet lacking for much of Baker's work and the entirety of Guiling's. Neither Chase's nor Dick's excavations in the project area were under National Park Service contract. Part of Dick's field work has been reported, however, (see Ireland and Wood 1973 and this report). I have also incorporated Baker's field work on six sites (eight habitation structures) into my own reports (Ireland 1970, 1973; Ireland and Wood 1973). Numerous excavated sites are yet unreported, however. These are treated here only in a cursory manner: site location, type of architecture, associated ceramics and, to a lesser extent, other associated artifacts.

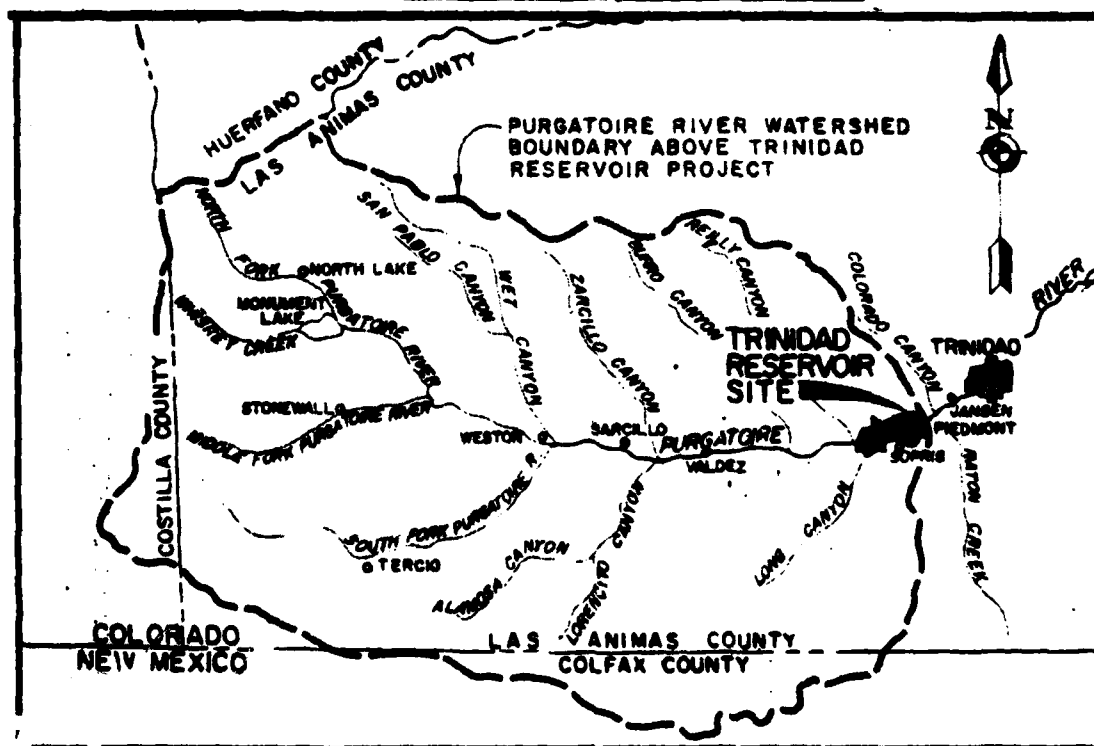
Fig. 1



VICINITY MAP

SCALE IN MILES

0 50 100



WATERSHED MAP

SCALE IN MILES

0 2 4 8 12 16

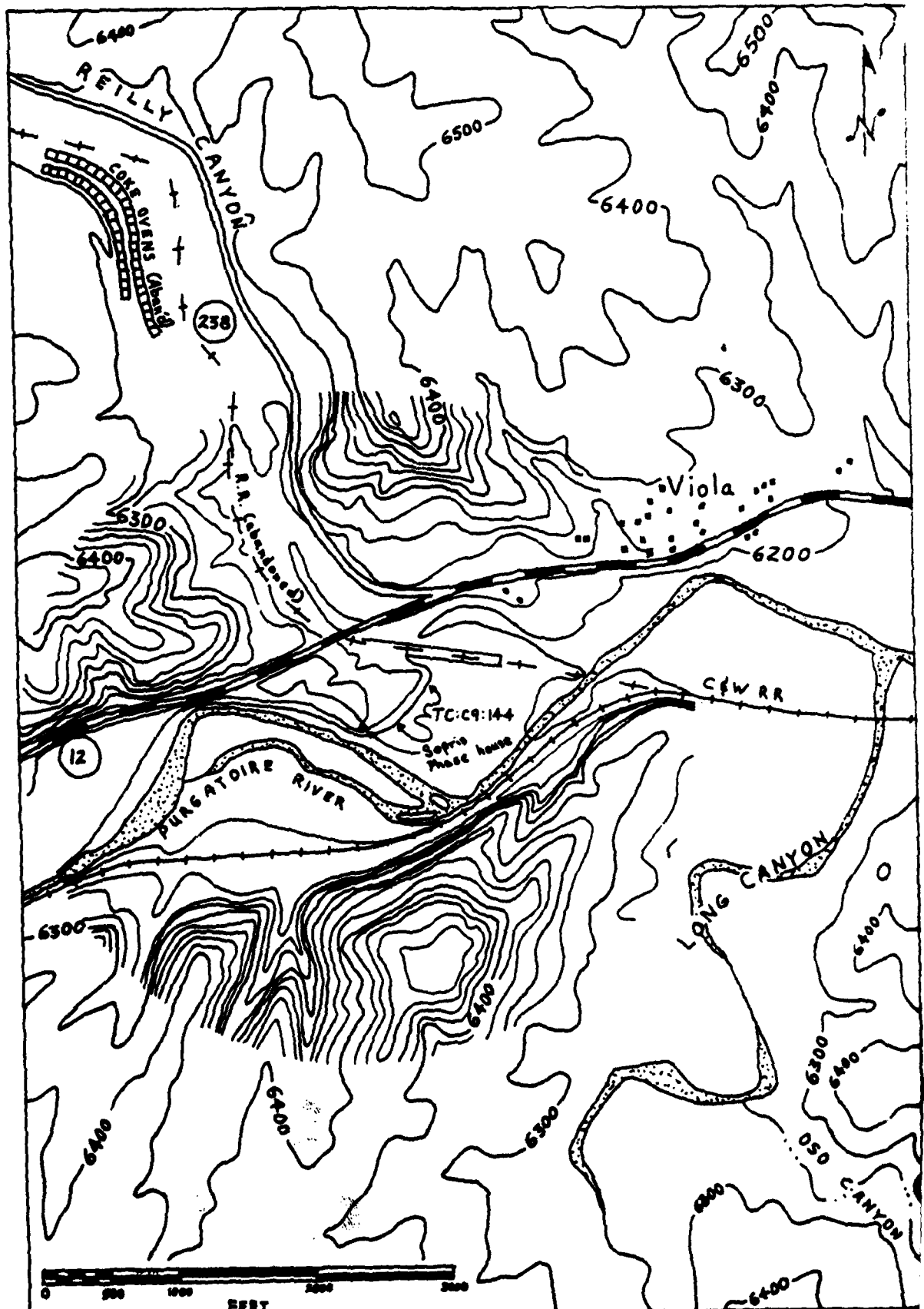
Source: U.S.C.E. map (File # AR-TRD-H-1).

SITE: TC:C9:144

The site designated as TC:C9:144 rests upon an alluvial terrace which projects into the flood plain of the Purgatoire River (T.33 S, R. 64 W, SW 1/4, NW 1/4 S. 31) and is within the boundaries of the Trinidad Reservoir Project. This terrace is the first relatively level geographical prominence north of the flood plain and lies immediately upstream (west) of the mouth of Reilly Canyon (Fig. 2). Colorado Highway 12 has segregated a small portion of the terrace which extends into this canyon. This Reilly Canyon extension of the terrace is designated TC:C9:145. A series of interconnected bluffs lie to the north of this highway and west of Reilly Canyon. The highest point of the bluff nearest TC:C9:144 is about 6,480 feet above sea level while the highest elevation of the terrace is at the base of the bluff north of Colorado 12 and is about 6,290 feet. The terrace slopes to the south and east; the southern edge at the four room prehistoric structure is about 6,250 feet; the elevation at the eastern edge is about 6,240 feet. The respective distances, from high to lows, are approximately 850 and 1150 feet. A gravel pit lies at the western edge of the terrace. Other disturbance by man includes relatively recent occupation of the terrace (see Feature 13), railroad beds immediately east of the terrace and immediately south of the Purgatoire, and the channelization of the river south of the terrace. These and other recent activities have unquestionably altered the vegetation as well as the topography of the area.

Archaeological investigations demonstrate multiple occupations of this terrace over an approximate span of seven centuries. The earliest of these is the four room stone masonry house at the southern

TC:C9:144 LOCATION MAP



* Adapted from U.S.C.E. map (File # AR-TRD-K-1.1).



Fig. 5. TC:C9:144 Sopris Phase house in process of excavation, 1972. View is southward with flood plain in background.

Remarks: Width of doorways probably less than indicated especially if each was framed with vertical stones as in other Sopris Phase sites. Also, lintels were not recognized for any of the structure's doorways. Evidence for roof is sparse, but positive - charcoal and oxidized soil clearly indicate a roof of wood and earth. The chunks of oxidized earth are small (1/8 - 1 inch in diameter) and none possess impressions of vegetal material (as if applied to the wooden superstructure in the form of mud). This oxidized material strongly resembles the nodules of soil associated with grass roots. This suggests that sod and little to no mud was used for the roof covering. Note: the designation of Feature 1 was inadvertently extended to portions of the adjacent room which is here wholly covered by the term Feature 5.

Feature 3

Type of feature: Surface stone masonry room.

Location: North corner of room block.

Plan:

Form: Nearly square.

Size: Inside measurements approximately 5.5 feet x 5.7 feet;
at NW wall 5.4 feet; at NE wall 5.6 feet; at SE wall 5.6 feet;
at SW wall 5.8 feet; floor area about 31 square feet.

Walls:

Construction: All four walls of stone masonry with higher volume of mud mortar used in two interior walls. Description of F.1 stone wall applies.

Standing height: 1-15.75 inches

Probable height: 5-6 feet

Wall openings:

Doors: Two

Location:

1.) into F.1

2.) into F.9

Dimensions:

Height: unknown

Width: 2.6 feet?

Height: unknown

Width: 1.6 feet

Ventilator: None defined. Note: portion of basal course of NE wall in Grids 1S5E and 2S5E was laterally displaced when wall collapsed and is plotted on the base map as a break in the wall.

Floor: Soil, probably packed through use. Definition difficult due to rodent disturbance.

Post holes: None defined or expected.

Fire pits: None defined.

Subfloor pits: None defined.

Roof: Evidence essentially the same as F.1. It is believed that the roof covering all four rooms was a single continuous unit. The superstructure burned. What is interpreted as the fire-reddened upper surface of the roof is discussed under the subheading of Fill.

Sopris Phase structure and an approximate elevation of 6,265 feet. This point commanded a view both up and down the Purgatoire Valley as well as northward up Reilly Canyon. This was the largest of the three areas, was roughly oval in outline, and measured about 34 by 23 feet. An estimated 4-5,000 chips and flakes were exposed on the soil surface with over 90% composed of argillite with small percentages of chert, jasper, chalcedony and obsidian represented. The other two areas were much smaller (10 and 12 feet in diameter), had lower numbers of flakes and chips exposed (estimated 3-4,000) and both were located at the edge of the terrace (one at the eastern tip and the other about midway between the eastern tip and the maximum northward extension of the terrace). From both of these areas, visibility up Reilly Canyon and down the Purgatoire Valley was excellent, but limited up the Purgatoire because of the terrace itself.

A bewildering array of designations have befallen this alluvial terrace and its archaeological contents. A site survey card completed by Herbert W. Dick in 1957 and currently on file at Trinidad State Junior College gave the number TC:C9:5 to the Sopris Phase structure. Dick (1963:6,9) gave that designation to another Trinidad Reservoir site and renumbered this structure to TC:C9:17. Dick (1963:6-7) assigned TC:C9:6 to the modern historic structure. In 1965 Galen Baker resurveyed the upper Purgatoire River Valley and TC:C9:144 was assigned to the Sopris Phase structure, replacing the former designations of TC:C9:17 and TC:C9:5. In that resurvey, the number TC:C9:145 was given specimens collected from this terrace north of Colorado Highway 12.

In this report the terrace north of Colorado 12 is called TC:C9:145

and the designation TC:C9:144 is applied to all cultural manifestations on this terrace south of Colorado Highway 12. TC:C9:6, the foundation of a modern historic structure, became Feature 13 of TC:C9:144.

In 1972, the assignment of excavational (feature) and collected specimen numbers under the heading of TC:C9:144 proceeded according to a slightly modified Museum of New Mexico system (Dittert and Wendorf 1963). Thus, the test trench which produced the majority of the Cimarron Micaceous sherds is Feature 12 of TC:C9:144 and the tenth specimen collected from that feature was labeled "C9:144-12-10". Complete provenience and associational data was recorded for each collected specimen.

Excavational Method

An arbitrary datum point (Datum Point 1) was established approximately 40 feet north of the pot hole to serve as a basic reference point for explorations north of the Sopris Phase structure. A three-foot horizontal grid system was imposed over this general area and for the purposes of numbering grids, a "zero point" or Datum Point 2 was established 36 feet south of Datum Point 1. Under this grid notation system, the grid northeast of and contiguous to Datum Point 2 was designated "1N1E."

Excavation proceeded by arbitrary levels (generally six inch and occasionally three inch) except where cultural stratigraphy allowed. The traditional hand tools were utilized with rock hammers used occasionally on the very compact loam. The only machinery used for the excavational procedures was the centrifugal

water pump employed for water-screening.

Our pre-excavation plans called for the use of on-site water-screening and flotation in the laboratory since the retrieval of ecofactual data was one of the primary goals of our research activities. These combined methods of retrieval functioned well though not as well as I had anticipated. The problems which we encountered with these methods were difficulties in the application of the techniques and the archaeological circumstance rather than deficiencies in the procedures themselves.

Initially water-screening of all excavated material at TC:C9:144 was attempted. A three horsepower centrifugal pump (Montgomery Ward model number SBN-25433) was set on the flood plain immediately south of the Sopris Phase structure. Two inch "fire" hose was extended from the pump up the nearly 45 degree southeast slope of the terrace to a point about 50 feet distant from and approximately 10 feet lower in elevation than the unexcavated structure. At this point, five large sceans were placed on a narrow terrace we had excavated into the slope. Each screen measured 41 x 30 x 11 inches and one large side was covered with 1/15 inch wire screen. Each easily contained the contents of a 4 1/2 cubic foot wheel Barrow. Our first trials placed the material excavated from the same feature, grid, and level in a wheelbarrow which was transported to and dumped into a single screen. The steps described thus far proceeded easily and rapidly and in my estimation were more economical in terms of time and energy consumed than the traditional dry-screen process. However,

difficulties in achieving a dependable water supply at the location of the screens forced the revision of our application of water-screening after three days of excavation. This pump was capable of handling a vertical lift of approximately 30 feet at sea level, but could not consistently supply the necessary amount at this high altitude—a factor I forgot to consider in calculating our requirements of such a mechanism. Thus, we moved the screens from the slope to the flood plain and began water-screening only samples. The samples for water-screening were taken from the three inch "balk" at the north edge of each three foot square grid excavated at TC:C9:144. The material within each of these balks was divided into separate lots according to depth. Where applicable, the three inches above floor or use surface level was taken as a sample from each balk; arbitrary three and six inch depths otherwise. The volume of each sample taken was recorded and was in every instance no greater than the capacity of a large double strength paper grocery sack. The plans called for water-screening of the total contents of subfloor and fire pits; however none were encountered at TC:C9:144. All other material was screened dry using 1/4 inch wire screen.

Complete provenience data was recorded and a specimen number assigned for each sample taken. The specimen number was written on a small piece of paper which was placed in a small plastic pharmaceutical vial. The vial was placed in the paper sack along with the sample material which was hand-carried down to the flood plain for water-screening. The plastic vial and specimen number contained therein remained with the material throughout the aqueous portions of the

screening and flotation processes. Breakage of the vials was minimal and in no instance was the specimen number lost or separated from its accompanying material.

Because of the paucity of culturally derived materials typically contained by Sopris Phase sites and the desire for data comparable to other sites of this phase, it was decided that all excavated material that was not water-screened would be screened dry in the traditional manner. As in the excavation of other Sopris Phase sites, screens with 1/4 inch wire screening were utilized to this end.

Only materials which had been water-screened were subjected to the flotation process. An inexpensive second-hand bathtub was used as a flotation tank. The tub was elevated to a suitable working height which enabled a drainage hose to be run out a laboratory window. Thus, the laboratory plumbing system was not taxed by the inevitable sediment and the shrubbery profitted also.

A redwood screen measuring 21 x 19 x 9 inches with 1/15 inch wire screening was placed in the tank so that only the bottom 4-5 inches were submerged. Each sample of water-screened material was placed into the water within the confines of the screen. The material which floated (organic material and even some small flakes of lithic debitage) was immediately skimmed off the surface of the water with a tea strainer. The "skim" including the original plastic vial was placed on a cafeteria tray. The sediment remaining in the flotation screen was put on another tray along with another vial containing a duplicate specimen number. The trays were placed on a portable bread rack for drying. The climate which is typically arid, sunny and breezy

facilitated drying after both water-screening and flotation.

Artifactual and ecofactual items were sorted from both the skim and sediment through the use of an illuminated magnifying lens. All items within a single sample were given the same specimen number. The items which were unsuitable for labeling because of small size or their nature were placed into the accompanying vial. The remaining items were labeled with the specimen number.

The minutae retrieved using the combined techniques of water-screening and flotation is considerable and the sorting and analysis of these materials is very time consuming. Because of a desire for economy of time and the fact that the application of these techniques was producing the desired results (i.e., recovery of quantities of plant seeds), the quantity of samples taken for water separation were scaled down for a second habitation structure excavated during the 1972 field season.

Despite the problems we experienced in the application of these relatively new recovery techniques and the problems in analyzing and interpreting the data retrieved, it is my opinion that the time and effort spent is justified. If nothing else, we now know that wild plant foods were gathered by the occupants of at least two and presumably all Sopris Phase sites. As anticipated, these procedures did not answer all of our questions. Perhaps the two largest questions are still unanswered and the problem of dealing with negative evidence still exists. These two questions are: (1) were beans and squash raised in addition to corn? and (2) were fish or other reptiles a food resource? These questions are dealt with in the conclusions section.

Architectural Features

The Sopris Phase at TC:C9:144 is represented by a four-roomed stone masonry structure (Fig. 4). The plan is nearly square (approximately 20 feet ENE-WSW; 19 feet NNW-SSE) with each of the rectangular rooms located at a corner of the structure. Total floor space measures about 280 square feet (F.1: 62 sq. ft.; F.3: 31 sq. ft.; F.8: 130 sq. ft.; F.9: 57 sq. ft.).

All exterior walls are of stone with mud used as mortar. The southern corner is missing presumably due to erosion. The masonry is roughly coursed; the majority of the stones are sandstone with an occasional cobble. The sandstone slabs or blocks have been only roughly shaped and vary from 9-24 inches in length, 9-12 inches in width, and 1-5 inches thick. The mortar was made from a dark brown loam and varies in thickness from one to four inches. The maximum standing height of 15 inches is the southwest wall of F. 1. The exterior walls range from 10 to 15 inches in thickness.

Interior walls were constructed by two methods. Three of these were of stone masonry with a slightly greater volume of mud mortar than in the exterior walls. The fourth, which separates F.1 and F.8, is of earth. This earthen partition was formed of mud and apparently modeled by hand as there was no evidence for pouring. The term adobe will be applied to this wall as it has to other mud walls in Trinidad Reservoir sites but these walls were not formed of bricks and also lack a vegetal binder such as straw. Seemingly, the mud wall was partially destroyed in the process of excavation since its composition

was nearly identical to the fill of the structure. It is possible, however, that excavation proceeded through a floor level doorway in this adobe wall and little of the wall was destroyed. If such an inter-room doorway existed, its dimensions are unknown although its width was probably less than the nearly five foot gap in the excavated wall. The existence of other floor level inter-room doorways was demonstrated. Two interior doorways extend from F.3; one into F.1 and the other into F.9. Excavation showed that the stone wall separating F.8 and F.9 was not complete at floor level but a doorway could not be precisely defined as displaced wall stones surround the gap in the wall and may represent a portion of the missing wall.

Two wall openings in the exterior walls were defined. One, a floor level doorway, is located in the northwest wall and extends from F.1 to the outside. The method of covering this doorway is not known. The other opening, a floor level ventilator shaft, extends from F.8 to the exterior through the southeast wall.

The original height of all walls, interior and exterior, is presumed to have been five to six feet. It is assumed that the upper walls were constructed by the same method as the lower walls. The volume of stone in and around the site was not large enough to confirm this. However, it is suspected that most of the southeast wall had fallen over the edge of the terrace and that stone was scavenged from this prehistoric site to be used for the foundation of the nearby historic structure (TC:C9:6).

Evidence from the fill of each of the four rooms indicates a roof of wood and earth: probably a cribwork upon which earth

(possibly sod) was placed. A flat, level or slightly pitched roof is envisioned.

The floor was packed earth which was poorly defined in most areas and absent in some areas due to rodent disturbance. The floor in the northern portion of F.8 and contiguous mud wall was oxidized red and charcoal stained. The burning superstructure was responsible for this. No floor features were defined for any of the rooms. An area near the center of F.8 was disturbed by rodents and may have once been a fire pit. No post holes were encountered nor would vertical roof supports have been necessary if the roof rested upon the walls. No pits, sub-floor or extraarchitectural, were discovered despite careful examination for such.

Sopris Phase Architectural Features

Each of the four rooms are here given a single feature designation. The room at the northwest corner of the room block is called Feature 1; at the northeast corner is F.3; at the southwest corner is F.8; and at the southeast corner is F.9. The northern portion of F.8 was originally designated F.1 because of excavational error--failure to recognize the existence of the mud wall separating the two rooms. The original specimen numbers have been retained. Hence some from the southwest room (F.8) have erroneous provenience digits (F.1) in their labels.

The following feature forms contain information gained through the 1972 excavation of the four room structure and conform to previous reporting by the author.

Feature 1

Type of feature: Surface stone masonry room.

Location: West corner of room block.

Plan:

Form: Roughly rectangular.

Size: Inside measurements approximately 12.2' x 5.4'; at NW wall 12.0 feet; at SE wall 12.4 feet; at NE wall 5.8 feet; at SW wall 4.4 feet; floor area about 62 square feet.

Walls:

Construction: Three walls of roughly coursed stone masonry: stones are largely sandstone with occasional cobble, stones of irregular shape and size (9-24 inches x 9-12 inches x 1-5 inches), mud used as mortar with greater volume of mortar used in F.1-3 wall than two exterior walls, mortar made from dark brown loam. F.1-8 wall composed of mud (same as mortar) with few incorporated stones. Mud wall apparently modeled by hand.

Standing height: 3-16.5 inches.

Probable height: 5-6 feet.

Wall openings:

Doors: Two, possible three; all floor level

Location:

1.) to exterior (NW wall)

2.) into F.3

3.) into F.8?

Dimensions:

Height: Unknown

Width: 3.3 feet?

Height: Unknown

Width: 2.6 feet?

Height: Unknown

Width: less than 4.8 feet

Ventilator: None defined.

Floor: Soil, probably packed through use. Definition difficult due to rodent disturbance.

Post holes: None defined or expected.

Fire pits: None defined.

Subfloor pits: None defined.

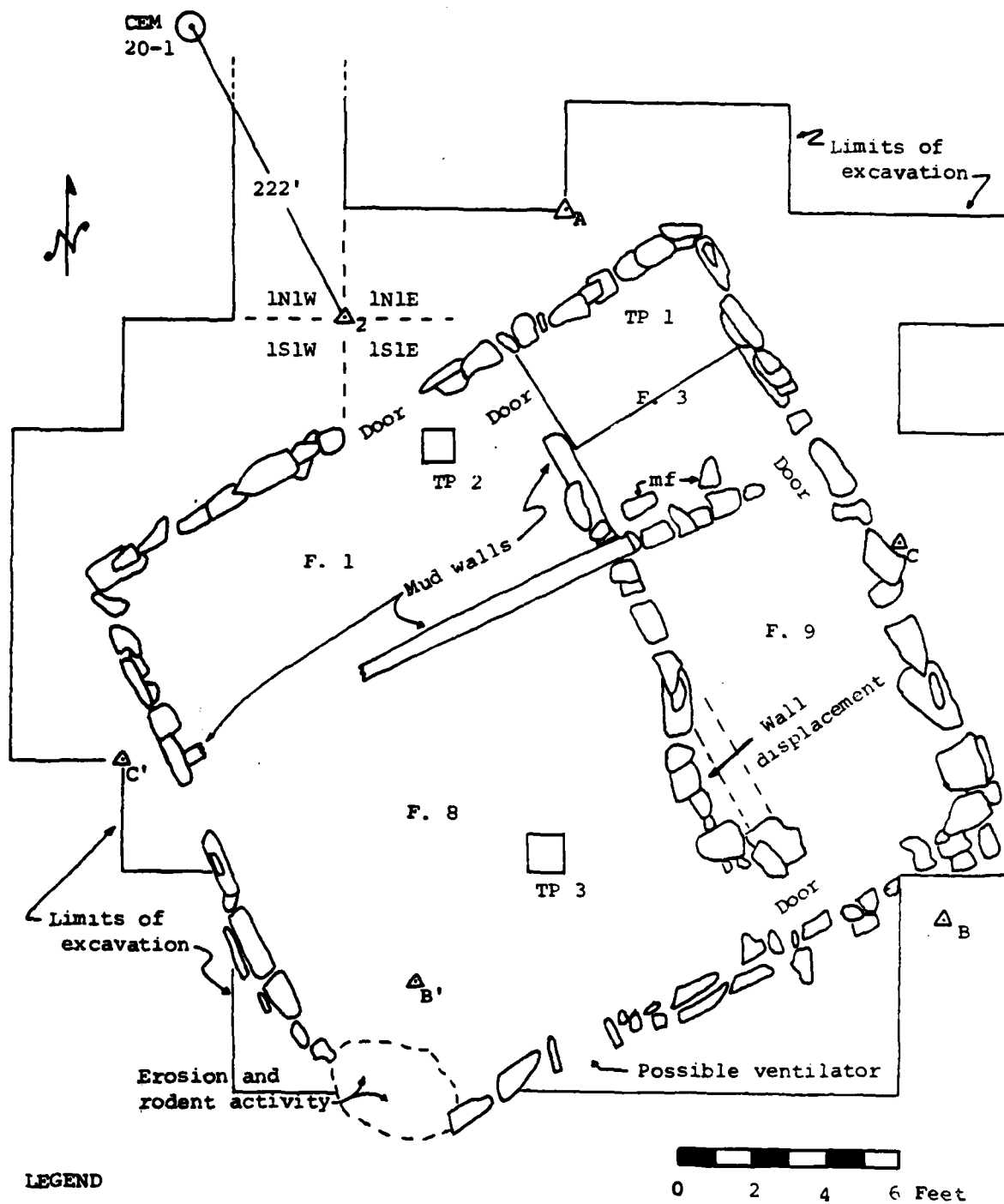
Roof: Of wood and earth, probably wooden cribwork covered with earth (possibly sod). A flat, level or slightly pitched roof is envisioned. The superstructure burned.

Fill: Consisted of a dark brown loam with no definite strata. Sandstone slabs throughout upper depths--interpreted as fallen wall. Floor virtually non-existent. In many areas the level of the floor was estimated. Evidence of roofing came from the 2-4 inches above the floor level: occasional chunks and flecks of charcoal and small chunks of oxidized earth. Fill above the roof material was only flecked with charcoal. Subfloor Test Pit 2 was excavated in Grid 251E and revealed that the trashy brown loam extended 18 inches below floor level where the Pleistocene gravel deposit was encountered. Extreme disturbance by rodents was evident at all levels.

Fig. 4a

TC:C9:144

PLAN OF SOPRIS PHASE HOUSE

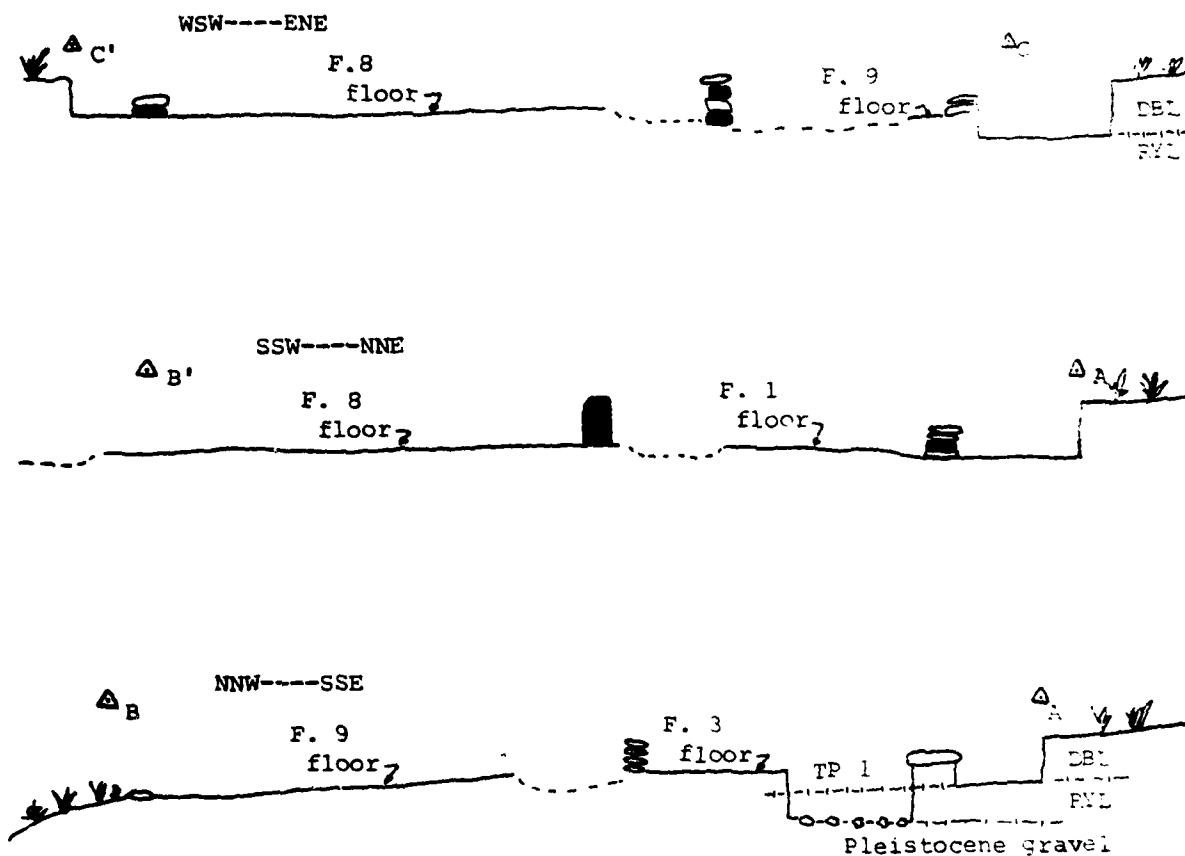


LEGEND

- ⊙ CEM 20-1 Corps of Engineers marker
- TP 1 Test Pit 1
- mf metate fragment
- △ 2 Datum 2 ("Zero point")

TC:C9:144

PROFILES OF SOPRIS PHASE HOUSE



LEGEND

- DBL Dark brown loam
- RYL Reddish yellow loam
- TP 1 Test Pit 1
- Undercut by rodent activity



Fig. 5. TC:C9:144 Sopris Phase house in process of excavation, 1972. View is southward with flood plain in background.

Remarks: Width of doorways probably less than indicated especially if each was framed with vertical stones as in other Sopris Phase sites. Also, lintels were not recognized for any of the structure's doorways. Evidence for roof is sparse, but positive - charcoal and oxidized soil clearly indicate a roof of wood and earth. The chunks of oxidized earth are small (1/8 - 1 inch in diameter) and none possess impressions of vegetal material (as if applied to the wooden superstructure in the form of mud). This oxidized material strongly resembles the nodules of soil associated with grass roots. This suggests that sod and little to no mud was used for the roof covering. Note: the designation of Feature 1 was inadvertently extended to portions of the adjacent room which is here wholly covered by the term Feature 2.

Feature 3

Type of feature: Surface stone masonry room.

Location: North corner of room block.

Plan:

Form: Nearly square.

Size: Inside measurements approximately 5.5 feet x 5.7 feet; at NW wall 5.4 feet; at NE wall 5.6 feet; at SE wall 5.6 feet; at SW wall 5.8 feet; floor area about 31 square feet.

Walls:

Construction: All four walls of stone masonry with higher volume of mud mortar used in two interior walls. Description of F.1 stone wall applies.

Standing height: 1-15.75 inches

Probable height: 5-6 feet

Wall openings:

Doors: Two

Location:

1.) into F.1

2.) into F.9

Dimensions:

Height: unknown

Width: 2.6 feet?

Height: unknown

Width: 1.6 feet

Ventilator: None defined. Note: portion of basal course of NE wall in Grids 1S5E and 2S5E was laterally displaced when wall collapsed and is plotted on the base map as a break in the wall.

Floor: Soil, probably packed through use. Definition difficult due to rodent disturbance.

Post holes: None defined or expected.

Fire pits: None defined.

Subfloor pits: None defined.

Roof: Evidence essentially the same as F.1. It is believed that the roof covering all four rooms was a single continuous unit. The superstructure burned. What is interpreted as the fire-reddened upper surface of the roof is discussed under the subheading of Fill.

Fill: Depth of fill (soil surface to floor surface) about 18 inches on N; about 16 inches on S. The upper 9-11 inches were a dark brown loam flecked with charcoal and an occasional sandstone slab (interpreted as fallen wall). At this level (ca. 5-6 inches above the floor) a hard, fire-reddened surface was encountered. This surface was roughly trapezoidal in plan, covered an approximate area of 13 square feet, and extended from the western corner to the center of the room and near the NW and SW walls. The 5-6 inches below this reddened surface (down to the floor) was unquestionably the remnants of the burned and fallen roof. This strata was a brown loam with flecks and small chunks of charcoal and an occasional piece of sandstone which had been subjected to fire. The smaller pieces of sandstone may have been incorporated in the sod while the larger pieces may have been used to cover holes in the roof. The fire-reddened surface lying stratigraphically above the roofing material is interpreted as the upper surface of the roof itself. It is suggested that the roof was utilized, at least nominally, for the storage of combustible materials (firewood?) and perhaps for work as well. Rodent activity was evident at all levels of the fill.

Remarks: Subfloor Test Pit 1 was excavated within F. 3. It covered an area of 19 sq. ft. and had a depth of 23 inches. A brown loam flecked with charcoal extended from the floor to the Pleistocene gravel deposit (23 inches on the west; 12 inches on the east). This may indicate irregularities in the soil surface were filled in prior to construction of this structure.

Feature 8

Type of feature: Surface stone masonry room

Location: Southern corner of room block

Plan:

Form: Roughly rectangular

Size: Inside measurements approximately 12.5 feet x 10.6 feet;
" at NW wall 12.6 feet, at NE wall 10.6 feet, at SE wall 12.0 feet, at SW wall 10.6 feet; floor area ca. 130 square feet.

Walls:

Construction: Two exterior walls and partition separating F.8 and F.9 are of roughly coursed stone masonry. W. side of F.8-9 wall roughly plastered with mud. Interior F.1-8 wall of mud with few incorporated stones. Mud wall sloped downward and outward to meet the floor; no evidence of such on opposite side of wall. Lower mud wall fire-reddened.

Standing height: 1-16.5 inches (several sections missing)

Probable height: 5-6 feet

Wall openings:

Doors: None positively defined. Possible doorway through mud wall has been described with Feature 1. Gap in exterior wall (17.5 inches, Grid 5S2W) and gap in F.8-9 wall (0.8 inches, Grid 6S4E) are both the result of post-abandonment lateral displacement of sections of the stone walls. The exterior wall at the SW corner of the room was missing because of erosion. Presumably there were no wall openings at or near the corner.

Ventilator: One.

Location: To exterior, through SE wall (Grids 7S2E and 7S3E).

Dimensions: Height presumed to be 3.5 inches (based upon height above floor of each vertical sandstone slab on each side). Width of opening is 22.5 inches.

Note: Interpreted as a ventilator and not a doorway because of low height (3.5 inches) of the up-right slabs on either side of opening.

Floor: Soil, probably packed through use. Approximately one-half of floor on eastern side of room was fire-reddened and charcoal stained as was lower portion of F.1-8 and wall. Rodent activity and erosion were responsible for the fragmental condition of the floor.

Post holes: None defined.

Fire pits: None defined although a rodent den near the center of the floor (Grid 5S1E) may have wholly or partially included a fire pit. If such a pit existed, it would have had a diameter of less than 2 feet and a maximum depth below the floor surface of 3 inches.

Subfloor pits: None defined.

Roof: Evidence essentially same as F.1 and F.3. Conflagrant roof fell resulting in oxidized and charcoal stained floor.

Fill: The depth of fill in various parts of the room varied considerably with the depths greater N than S. The depths at room corners are: NW, 16 inches; NE, 17.5 inches; SE, 3 inches; SW, 3 inches (undercut by erosion and rodents). Fill generally consisted of a dark brown loam with the percentage of cultural debris increasing at lower depths. Roofing materials (oxidized clay and charcoal) came from the 2-6 inches above floor level and were found in localized pockets rather than in a continuous sheet deposit. Extreme rodent activities at all levels including subfloor. Subfloor Test Pit 3 was excavated in Grid 6S2E to a depth of 8 inches below the floor. Oxidation of the soil extended downward ca. 0.2 inches. The approximate 0.8 inches below this was a brown loam flecked with charcoal (no artifacts recovered). The underlying 7 inches was a sterile slightly reddish yellow loam. At a distance of about 8 inches, below the floor surface, the Pleistocene gravel deposit was encountered.

Remarks: Original field designation of F.1 was applied to a portion of this room. Here the term F. 8 is employed for this room only.

Feature 9

Type of feature: Surface stone masonry room

Location: East corner of room block

Plan:

Form: Roughly rectangular

Size: Inside measurements approximately 10.8 feet x 5.4 feet; at NW wall 5.4 feet; at NE wall 10.6 feet; at SE wall 5.4 feet; at SW wall 11.0 feet; floor area about 57 square feet.

Walls:

Construction: All walls of stone masonry as described for other architectural features.

Standing Height: 1-12 inches (some sections missing)

Probable Height: 5-6 feet

Wall openings:

Doors: One, into F.3, described previously. Note: portion of basal course of exterior walls in Grids 3S5E and 6S6E was laterally displaced when walls collapsed.

Ventilator: None defined

Floor: Soil, probably packed through use. Aboriginal surface largely destroyed by rodent activity.

Post holes: None defined or expected

Fire pits: None defined

Subfloor pits: None defined

Roof: Direct evidence for wood and earth as in other three rooms, though quantitatively less evidence. Suspect greater degree of combustion before collapse than other rooms.

Fill: Depth of fill varied from about 17 inches on the N. to virtually nothing at the SE corner. The fill generally was a dark brown loam with collapsed walls, flecks of charcoal and an occasional artifact above collapsed, burned roof material. The amount of roof-derived charcoal and nodules of oxidized earth was small, diffuse and located 1-5 inches above the floor level.

Remarks: As in the other rooms, rodent activity was evident and plentiful at all levels. Some of the burrows were still in use at the time of excavation. In fact, it was in this room that an audacious gopher (probably a yellow-faced gopher, *Cratogeomys castanops*) repeatedly pushed his own backdirt into the excavator's area of concentration.

Other Archaeological Features

The following is slightly revised data from field forms completed in 1972. With the exception of F. 13, these archaeological features were explorations which did not yield evidence of architecture. F. 13 is the field designation given the foundation of a recent historic house which was previously designated TC:C9:6 (Dick 1963:6).

Feature 2

Type of feature: Expanded test trench

Location: Along entire NW and portion of SW wall of house;
contiguous to Features 1, 3, 5 and 6.

Size:

Horizontal: About 117 sq. ft.

Vertical: 8-20 inches.

Stratigraphy: The roots of the grasses extend down about 2-3 inches at which point a dark brown loam begins. This loam contained a high volume of sandstone slabs from the fallen walls and the majority of the extra-architectural Sopris Phase artifacts at the lower levels. No discrete use surface was defined; the underlying reddish yellow-brown loam is presumed to represent that. This lower strata was devoid of artifacts and contained a very low volume of diffuse charcoal. The presumed aboriginal use surface level sloped away from the house walls. Rodent activity throughout.

Remarks: See Feature 5 for remarks pertinent to this feature.

Feature 4

Type of feature: Subsurface test.

Location: Grid 6N13E; about 30 ft. ENE of Sopris Phase structure.

Size:

Horizontal: 9 sq. ft.

Vertical: 3-7 inches.

Stratigraphy: Few sandstone slabs with some gravel exposed on soil surface; gravel with brown loam down to 5 inches; gravel with sand below that depth.

Remarks: Tested because of occasional exposed sandstone slab in this area. Quick uncontrolled testing in Grid 4N11E along the side of a vertically oriented slab produced the same stratigraphy and results; no evidence of occupation or utilization by man.

Feature 5

Type of feature: L-shaped test trench.

Location: North of Sopris Phase structure and contiguous to F.2.
Grids 2N1W, 3N1W, 4N1W and 4N1E.

Size:

Horizontal: 36 sq. ft.

Vertical: 36 inches in Grid 2N1W; 20 inches elsewhere.

Stratigraphy: Light cover of grama grass; humus 0-2 inches; dark brown loam flecked with charcoal to depth of approximately 18 inches; reddish yellow-brown loam with occasional fleck of charcoal to depth of 27 inches; Pleistocene gravel deposit below that. Rodent disturbance evidence at all depths. Historic artifacts found in upper 4 inches; Sopris Phase artifacts mostly from lower portion of dark brown loam strata.

Remarks: The upper limit of the reddish yellow-brown is presumed to represent the soil surface when the Sopris Phase structure was occupied. This presumed use surface is lower in this feature than in the excavated features to the south. The stratigraphy of Features 1, 2, 3, 5 and 6 reveals a nature depression or trough in this surface that was aligned WSW-ESE. Test Pit 1 in F.3 revealed that this trough was partially filled before erecting the house walls. This slightly altered trough would have channeled runoff from the terrace to the north away from the house. Thus the doorway exterior to F.1 was protected from both water and wind.

Feature 6

Type of feature: Expanded test trench.

Location: Contiguous to F.3 portion of Sopris Phase structure and to F.2 and 10. Grids 1N5E, 1N6E, 1S5E, 2S5E and 2S6E.

Size:

Horizontal: About 41 sq. ft.

Vertical: 15-21 inches.

Stratigraphy: Same strata as in F.2 and 5: Humus layer to about 2 inch depth; brown loam with flecks of charcoal and high volume of fallen wall stone to depth of 15 to 21 inches; reddish yellow-brown sterile loam below. Previously mentioned trough extends through north part of this feature and adjacent wall set upon partially filled trough. Rodent activity throughout.

Feature 7

Type of feature: Subsurface test.

Location: 15 feet north of north corner of Sopris Phase structure. Grid 7N5E.

Size:

Horizontal: 9 sq. ft.

Vertical: 28 inches.

Stratigraphy: Humus layer to subsurface depth of about 2 inches; dark brown loam with few flecks of charcoal to 7 (downslope) or 10 inches (upslope); sterile reddish yellow-brown loam to 23 inch depth; Pleistocene gravel deposit below. Rodent activity throughout strata above gravel.

Feature 10

Type of feature: Test trench.

Location: Contiguous to F.9 stone wall; Grid 3S6E and portions of 3S5E and 4S6E.

Size:

Horizontal: About 18 sq. ft.

Vertical: 3-6 inches.

Stratigraphy: Surface largely covered with sandstone slabs from fallen wall; humus layer to 2 inch depth; brown loam flecked with charcoal to 4 or 6 inch depth; gravel deposit immediately below. Rodent activity considerable in loam layer.

Remarks: Reddish yellow-brown loam absent in this feature; aboriginal soil surface was slightly above gravel deposit.

Feature 11

Type of feature: Test trench

Location: 16 feet W of Datum Point 1; 32 feet NNW of N corner of house.

Size:

Horizontal: 15 sq. ft. (1.5 ft. N-S x 10 ft. E-W).

Vertical: 7 inches.

Stratigraphy: Surface covered with nearly oval concentration of reddened cracked rock; humus layer 0-2 inches; dark brown loam with diffuse charcoal throughout 2-7 inches; sterile reddish yellow-brown loam contacted at 7 inch depth.

Remarks: Surface rocks subjected to heat; possibly utilized for stone boiling. Stratigraphic placement indicates historic origin but lack of associated diagnostic artifacts precludes precise cultural assignment.

Feature 12

Type of feature: Test trench.

Location: 51 feet NNE of Datum Point 1.

Size:

Horizontal: 30 sq. ft. (3 ft. N-S x 10 ft. E-W).

Vertical: 4-13 inches.

Stratigraphy: Grama grass cover with numerous Cimarron Micaceous sherds; humus 0-2 inches; dark brown loam with artifacts and charcoal to 4 inch depth; very compact sterile yellow loam contacted at 4 inches and extends below 13 inch depth.

Remarks: Heaviest concentration of charcoal, ceramics, lithics and bone at 2-3 inch depth but no discrete use surface defined.

Feature 13

Type of feature: Sandstone foundation of historic house.

Location: 120 ft. NE of Datum Point 1.

Remarks: Only the incomplete foundation remained in 1972. Rectangular in plan, it measured 14 ft. by 20 ft. Surface cultural debris consisted of broken porcelain, bottle glass, metal cans and coal. None of the historic Spanish ceramics found elsewhere on this terrace was retrieved in this locale. The extant artifacts indicate the structure may have been habited as late as perhaps A.D. 1950. There was no evidence to indicate its occupation prior to ca. A.D. 1900. Uncontrolled excavation within and adjacent to the foundation did not reveal evidence of underlying aboriginal occupations. Dick (1963:6-7) gave this historic house the site designation TC:C9:6.

Feature 14

Type of feature: Surface concentration of lithic debitage.

Location: 47 ft. from U.S.C.E. marker Trav. 20-1 south to center of concentration; about 175 ft. N of Sopris Phase structure.

Size:

Horizontal: 34 ft. N-S, 23 ft. E-W.

Vertical: Virtually 100% superficial.

Stratigraphy: Uncontrolled excavation with trowel in five locations of this concentration revealed few subsurface flakes and no other evidence of aboriginal cultures.

Remarks: An estimated 4-5,000 chips and flakes were contained in this area. Over 90% were argillite with small percentages of chert, jasper and chalcedony comprising the remainder. With an approximate mean elevation of 6,265 feet, this flint knapping area commanded a view both up and down the main valley as well as northward up Reilly Canyon. The cultural affiliation(s) of this lithic waste is uncertain.

Feature 15

Type of feature : Test trench.

Location: 43 ft. ESE of Datum Point 1, 44 ft. ENE from Datum Point 2.

Size:

Horizontal: 30 sq. ft. (3 ft. N-S x 10 ft. E-W).

Vertical: 2-7 inches.

Stratigraphy: Grama grass cover with an ant hill in center of feature; humus layer with flecks of charcoal and artifacts 0-3 inches; sterile reddish yellow loam below 3 inches.

Remarks: Cultural debris assigned to Apache occupation.

Feature 16

Type of feature: Surface concentration of lithic debitage.

Location: On the east tip of the terrace at the mouth of Reilly Canyon; about 625 feet from Sopris Phase house.

Size:

Horizontal: About 12 ft. diameter.

Vertical: Virtually 100% superficial.

Stratigraphy: Uncontrolled excavation with trowel in four locations of this concentration revealed very few subsurface items and no other evidence of aboriginal culture.

Remarks: This concentration contained an estimated 4,000 items of lithic debitage. As in Feature 14, over 90% were of argillite with small percentages of jasper, chert and chalcedony present. An individual sitting on this feature had an unobstructed view north up Reilly Canyon and east down the Purgatoire but not up the Purgatoire because of the terrace itself. The cultural origin(s) of this lithic waste is uncertain.

Feature 17

Type of feature: Surface concentration of lithic debitage.

Location: Near edge of terrace facing Reilly Canyon about midway between eastern tip of terrace and Colorado Highway 12. Approximately 500 feet from the Sopris Phase structure and 250 feet from Feature 16.

Size:

Horizontal: About 10 ft. diameter.

Vertical: Virtually 100% superficial.

Stratigraphy: Uncontrolled excavation with trowel in five locations in and around this concentration revealed very few subsurface lithic waste and no other evidence of aboriginal occupation.

Remarks: This feature contained an estimated 3,000 flakes and chips with approximately the same petrographic compositions represented as for Features 14 and 16. The view from this feature was virtually the same as that for Feature 16. The cultural origin(s) of this lithic material is unknown.

THE FAUNAL REMAINS AT TC:C9:144

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INTRODUCTION

A total of 2,144 items of bone and tooth were recovered from this site. Of these, only 189 have been identified as to the element and the animal represented (usually to the level of genus). A minimum of nine mammalian genera (Table 1) are indicated with avifauna not represented. Four of these genera are attributed to the occupation of the prehistoric stone structure, three genera are considered to be recent intrusions into that structure and its cultural debris and two genera are associated with historic Apache materials.

The 1,955 items of bone and tooth which were not identified by element nor taxonomically classified were recovered by the combined field and laboratory techniques of water-screening and flotation. Few of these were as large as 1 x 1/4 x 1/8 inch and were only roughly sorted (see later section). Less than one percent of the total bone items were whole or complete elements; preservation of bone was particularly poor also.

MAMMALS IDENTIFIED FROM TC:C9:144

ARTIODACTYLA

Cervidae

Deer (Odocoileus, probably hemionus and virginianus)

Antilocapridae

Pronghorn (Antilocapra americana)

Bovidae

Bison/Cow (Bison bison or Bos taurus)

LAGOMORPHA

Leporidae

Cottontail Rabbit (Sylvilagus, probably audubonii)

RODENTIA

Sciuridae

Squirrel (Spermophilus variegatus)

Geomyidae

Gopher (Cratogeomys castanops)

Cricetidae

Woodrat (Neotoma micropus)

UNGULATA

Suidae

Pig (Sus scrofa)

MINIMUM NUMBERS OF ANIMALS: TC:C9:144

Animal	Adult	Subadult	Total
Deer	3	3	6
Pronghorn	1	1	2
Bison/cow	1		1
Cottontail	2	1	3
Squirrel	1		1
Gopher	6		6
Rat	1	1	2
Pig	1		1

Table 2

ANIMALS AND ELEMENTS REPRESENTED AT TC:C9:144

ELEMENTS	ANIMALS	Deer	Pghn	Deer or Pghn	Bison or cow	Cot. tail	Sq1	Gphr	W. rat	Mic. rdnt	Rdnta	D. pig
Antler frag.		2										
Maxilla*												
Cranial frag.						1				1		
Mandible		2L 2R	1L 2R				1L	4L 2R	1L	2L 1R		
Vertebra											14	
Rib				8								
Scapula								2L				
Humerus		2L 1R				2L		1L 1R				
Ulna					1L			1L				
Radius		1L 3R			2L			1L				
Metacarpal		1L 1R										
Carpal*												
Pelvis		1L						1L 1R				
Femur						1L			1L			
Tibia		6L 3R				1L 2R			1L 1R			
Fibula											1	
Metatarsal		4L 3R				2L						
Prox. phalanx		1L				1L	4				6	
Med. phalanx		1L	1L								7	
Dist. phalanx			1L			3L 3R		3			1	
Calcaneum		1				1	1	5			3	
Astragalus						1						
Long bone frag.				11								
Teeth		1PM 2M	3PM 3M		1M			211		5M		1M

KEY: L = Left; R = Right; I = Incisor; PM = Premolar; M = Molar; Numbers without accompanying letters indicate side of animal not applicable or not determined. * = Elements not represented by any species.

DISCUSSION

Family Cervidae, Odocoileus

Thirty-three bone items and three teeth represent a minimum total of three adult and three subadult deer. The minimum count for adults is based upon the presence of three right tibia. Three subadults are indicated by a complete left mandible and two fragments of right mandibles; three different individuals of ages ranging from about two weeks to two years are represented. Two species of deer, Mule (hemionus) and White-tailed (virginianus), may be included in this collection. The only artifacts manufactured from deer are two antler tine tools and, possibly, a shaped bone disc with an oval outline.

Family Antilocapridae, Antilocapra

Five bone items and six teeth belong to pronghorn (americana) with one adult and one subadult (about two years of age) present. Mandibular fragments were basis for the minimum counts; a right and left for the adult and a right for the subadult. Eight rib fragments and 11 long bone splinters could not be positively identified as to genus, but can confidently be called deer and/or pronghorn.

Family Bovidae, Bison or Bos

The highly fragmentary elements of this Family include two radii, an ulna and a fragment of a molar. The species may be bison and/or taurus (domestic cow). Although the elements present indicate only a minimum of one adult, their provenience would seem to indicate two, one associated with the prehistoric stone structure and one of historic Apache origin.

Family Leporidae, Sylvilagus

Two adult and one subadult cottontail, probably the Desert Cottontail (audubonii) are indicated by 18 bone elements. These minimum counts are based upon two fragmental left humerii for the adults and various individually represented elements for the subadult. Not included in these calculations or in the faunal tabulations are 29 beads and fragments thereof which are believed to have been manufactured from cottontail long bones.

Family Sciuridae, Spermophilus

One mandible, four metapodial fragments and one calcaneum represent a Rock Squirrel (variegatus).

Family Geomyidae, Cratogeomys

Twenty-three bone items and 21 incisors represent Yellow-faced Pocket Gophers (castanops). The configuration of mandibles and incisors indicates a minimum of six adults.

Family Cricetidae, Neotoma

One adult and one subadult Southern Plains Wood Rat (micropus) are represented by four bone elements.

Order Rodentia

Maxillary and mandibular fragments with five molars were recovered and belong to the Subfamily Microtinae, but genus and species were not determined. In addition, 35 bones and bone fragments were identified only to the Order Rodentia.

Family Suidae, Sus

A molar represents a single adult domestic pig (scrofa).

Faunal Remains Retrieved by Means of Water Separation

As mentioned previously, the combined methods of water-screening

and flotation greatly increased the number of bone and tooth items recovered as well as lowered the percentage identified taxonomically. These 1,955 highly fragmental faunal remains represent only mammals and were rough-sorted into three categories: unburned bone fragments, burned bone fragments and teeth. The material in each of these categories was then sorted into two subgroupings: large mammal (probably deer, pronghorn and bison) and small mammal (probably largely rodent). The number of items in each of the six subcategories was tabulated (Table 3). The number and volume of the water-separation samples was calculated (Table 4) as was the density of the unidentified fragmentary faunal remains for each feature (Table 5).

An examination of that table reveals that high densities of fragmentary items from large mammals, both burned and unburned, came from architectural features with the highest from F.3 (the northeast room). Burned bone items from small mammals were recovered in only three features with the greatest density in the non-architectural feature F.2. The average density of small mammal bone and tooth fragments is greater for the architectural features than the non-architectural features although the maximum occurs in the non-architectural feature F.2.

Summary and Conclusions

The majority of the species present at FC:09:144 and the individuals representing them are attributed to the prehistoric occupants of the four-roomed stone structure. Deer, with a minimum of three adults and three subadult (one nearly fully developed) represented, appears to have been the preferred large game animal. An inordinately high number of pronghorn are present: one adult and one subadult. Another plains species rarely found in Trinidad Reservoir area sites is bison

Table 3

**Faunal Remains Recovered Through Water-Separation
at TC:C9:144**

Feature Number	Bone fragments		Teeth		Burned bone		Subtotal by feature
	large mammal	small mammal	large mammal	small mammal	large mammal	small mammal	
1	384	456	12	46	27	2	929
2	156	300	--	7	23	6	492
3	205	41	3	8	36	--	293
5	32	4	--	--	3	1	40
6	82	3	--	3	--	--	88
7	1	--	--	--	--	--	1
8	--	8	--	14	--	--	22
9	61	5	--	14	8	--	88
15	3	--	--	--	--	--	3
EPU*	1	--	--	--	--	--	1
	925	819	15	92	97	9	1,955

*EPU = Exact Provenience Unknown

Table 4

Water-separation Samples from TC:C9:144

Feature Number	Number of Samples	Total Vol of Samples (cu.ft.)
1*	49	10.88
2	17	5.81
3	12	3.06
4	None	----
5	27	6.88
6	8	2.25
7	2	0.56
8	2	0.54
9	6	3.06
10	None	----
11	None	----
12	None	----
13	None	----
14	None	----
15	1	0.38
Totals	124	33.42

*Use of term Feature 1 here and in subsequent faunal analysis calculations corresponds to the excavational feature, not the architectural feature.

Table 5

Density* of Unidentified Faunal Remains at TC:C9:144

Feature Number	Large mammal bone & tooth fragments	Large mammal burned bone	Small mammal burned bone	Small mammal bone & tooth fragments
1	36.40	2.48	0.18	46.32
2	26.85	3.96	1.03	52.84
3	67.97	11.76	0.00	16.01
5	4.65	0.44	0.15	0.58
6	36.44	0.00	0.00	2.67
7	1.79	0.00	0.00	0.00
8	0.00	0.00	0.00	40.74
9	19.93	2.61	0.00	6.21
15	7.89	0.00	0.00	0.00
Average (of total)	21.56	2.07	0.15	17.68
Average (Intra-architectural) ^a	26.09	3.56	0.05	25.77
Average (Extra-architectural) ^b	16.99	1.10	0.30	14.02

*Density is calculated as the number of items per cubic foot of samples taken.

a = Features 1, 3, 8 and 9.

b = Features 2, 5, 6 and 7; excludes Feature 15 which is assigned to the Apache occupation.

which may also belong to this inventory of game animals. Of the species of small mammals represented at TC:C9:144, only the remains of Cottontail displayed evidence of prehistoric utilization by humans although the remains of some of the rodents, squirrel, gopher and rat, may have been of cultural origin also or recent intrusions. Avian material is conspicuously absent. No fish or reptiles are represented by this faunal collection nor are they by the collections from any other Trinidad Reservoir area site. Thus, few species can be attributed to the menu of the occupants of this prehistoric structure.

The prehistoric use of bone for tools and ornamentation seems to have been minimal. One artifact category, bone awls, is without representation and may reflect the lack of activities associated with that tool. Tubular bone beads were manufactured from the long bones of cottontail and perhaps rodent species as well.

Two of the subadult deer have been given age estimates of two to three weeks and six months. Since deer give birth in late May or early June, it would seem that the prehistoric structure was occupied at least from June through November.

With the limited faunal sample, it is difficult to determine butchering practices from an examination of the frequency distribution of skeletal elements. There is an apparent low percentage of axial elements represented for the large game animals and may indicate that the vertebrae and skull were left at the kill site. Limited amounts and portions of deer antler may have been returned to the habitation structure as only artifactual antler was recovered and these tools were manufactured from the tines. The shafts of most of the long bones of the large mammals had been broken or smashed, presumably to obtain marrow.

Table 6

Distribution of Identified Faunal Items at TC:C9:144

Feature	Animal										
	Deer	Pronghorn	Deer/ Pgln	Bison/ Cow	Cotton- tail	Squirrel	Gopher	Rat	Mic. rodent	Rodentia	Pig
1	16	10	10	--	2	--	22	1	1	20	--
2	1	--	1	--	5	3	5	1	--	11	--
3	14	--	3	--	9	1	12	1	8	--	--
4	--	--	--	--	--	--	--	--	--	--	--
5	5	1	2	1	--	--	4	--	--	--	--
6	--	--	2	--	--	--	--	--	--	--	--
7	--	--	--	--	--	--	--	1	--	--	--
8	--	--	--	--	--	2	--	--	--	3	--
9	1	--	1	--	2	--	1	--	--	1	--
10	--	--	--	--	--	--	--	--	--	--	--
11	1	--	--	--	--	--	--	--	--	--	--
12	--	--	--	2	--	--	--	--	--	--	--
13	--	--	--	--	--	--	--	--	--	--	--
14	--	--	--	--	--	--	--	--	--	--	--
15	--	--	--	1	--	--	--	--	--	--	1
Total	38	11	19	4	18	6	44	4	9	35	1

Note: Controlled excavation was not conducted in Features 13 and 14.

Table 7

Density* of Identified Faunal Items at TC:C9:144

Animal Feature	Artiodactyla	Cottontail	All Rodentia	All small(a) mammals	All species represented
1	0.197	0.011	0.240	0.251	0.448
2	0.017	0.041	0.165	0.207	0.223
3	0.548	0.290	0.710	1.000	1.548
4	--	--	--	--	--
5	0.250	--	0.111	0.111	0.361
6	0.045	--	--	--	0.045
7	--	--	0.111	0.111	0.111
8	--	--	0.278	0.278	0.278
9	0.035	0.035	0.035	0.070	0.105
10	--	--	--	--	--
11	0.067	--	--	--	0.067
12	0.067	--	--	--	0.067
15	0.033	--	--	--	0.067 ^(d)
Aver Intra- architectural ^(b)	0.190	0.045	0.253	0.298	0.488
Aver Extra- architectural ^(c)	0.056	0.020	0.099	0.119	0.175
Average ^(b+c)	0.128	0.033	0.181	0.214	0.342

*Density is calculated as the number of identified items per square foot excavated. (a) All rodents plus cottontail, (b) Features 1, 3, 8 and 9, (c) Features 2, 4, 5, 6, 7, 10 and 11; excludes Features 12 and 15 which are assigned to the Apache occupation, (d) Includes pig.

Cottontail is the only species of small mammal present in this collection whose skeletal elements conclusively demonstrate utilization by prehistoric man; i.e. tubular bone beads. The charred fragments of bones from unidentified small mammals recovered through water-separation suggests the roasting of meat. None of the identified bones from Cottontail, squirrel, gopher or rat were burned, however. The density and distribution of burned bones from large mammals is quite different than that for the burned skeletal items from small mammals. The difference in the pattern of deposition of charred bone items may indicate that small animals were eaten/roasted outside the structure (F.2) while the meat from the larger animals was, for the most part, eaten/roasted within the house structure. The greatest densities of unburned small mammal bone items including those identified to species, however, is in F.3 (the northeast room). Interpretation of the results of the statistical computations are hindered by the smallness of the faunal collection.

Two species, each represented by one individual, are attributed to historic Apache occupation(s) of this alluvial terrace. The fragmentary remains of bison and/or cow were found associated with Cimarron Micaceous sherds in Features 12 and 15 and the molar of a domestic pig was similarly associated in F.15.

Artifact Analysis and Classification: TC:C9:144

The method of analysis and classification of the materials presented here conforms to that previously reported by the author for Trinidad Reservoir archaeological sites. The majority of artifacts collected from TC:C9:144 are assigned to the Sopris Phase occupation. The specimens from Features 1, 3, 8 and 9 are from within the prehistoric stone structure. All specimens retrieved from Features 12 and 15 are of historic Apache origin, as are many artifacts in the surface collection. Other items in the surface collection include historic Spanish pottery.

Chipped Stone Artifacts

PROJECTILE POINTS

A total of 25 projectile points were recovered from this terrace. Of these, 10 are triangular side-notched, 12 are triangular corner-notched, two are stemmed and one has been reworked into a side-notched point.

Triangular Side-notched Projectile Points

The notches of these points are paired and placed near the base. Basal outline has been the criterion for subdividing these points into five categories. The basal portion of two are straight, five are slightly convex, one is greatly convex, one is concave and one does not possess a complete base. The workmanship demonstrated by these points and the other chipped stone artifacts is generally poor.

Measurements in cm.			Feature & Number	Material	Basal Outline	Comments
l	w	th				
2.7	1.1	0.4	1-11	Argillite	Straight	Base only
0.7+	1.2	0.3	5-18	Argillite	Straight	
2.0	1.1	0.4	2-37	Argillite	S'ly convex	
1.7	1.2	0.3	1-73	Quartzite	S'ly convex	
2.2	1.2	0.3	2-42	Agatized wood	S'ly convex	
1.7	1.1	0.2	3-47	Argillite	S'ly convex	Base only
0.6+	0.8+	0.2	6-15	Argillite	S'ly convex	
1.8	1.1	0.3	0-5	Argillite	C'ly convex	
1.5+	1.1	0.3	2-6	Quartzite	Concave	Tip missing
1.0+	1.3	0.3	1-3	Quartzite	None	Base missing

(a plus (+) sign indicates the specimen is incomplete in that dimension)

Triangular Corner-notched Projectile Points

Four of the 12 possess a straight base while eight have a slightly convex base.

Measurements in cm.			Feature & Number	Material	Basal Outline	Comments
l	w	th				
2.3	1.2	0.4	3-23	Argillite	Straight	Surface collection
2.1	1.0	0.3	1-72	Argillite	Straight	
1.7	1.0+	0.2	14-1	Argillite	Straight	
1.4+	1.0	0.2	0-7	Argillite	Straight	
3.0	1.4	0.3	6-21	Argillite	S'ly convex	Tip missing
2.7	1.3	0.3	2-28	Argillite	S'ly convex	
1.9	1.1	0.4	4-11	Argillite	S'ly convex	
1.6	1.3	0.3	6-8	Argillite	S'ly convex	
1.5	1.0	0.4	9-7	Quartzite	S'ly convex	
1.5	1.0	0.2	7-2	Argillite	S'ly convex	
1.4+	1.2	0.3	3-23	Argillite	S'ly convex	
1.9+	1.2	0.4	1-34	Argillite	S'ly convex	Tip missing

Stemmed Projectile Points

The two specimens are both fragmentary. The tip is missing from each and a tang is absent on the one from Feature 9.

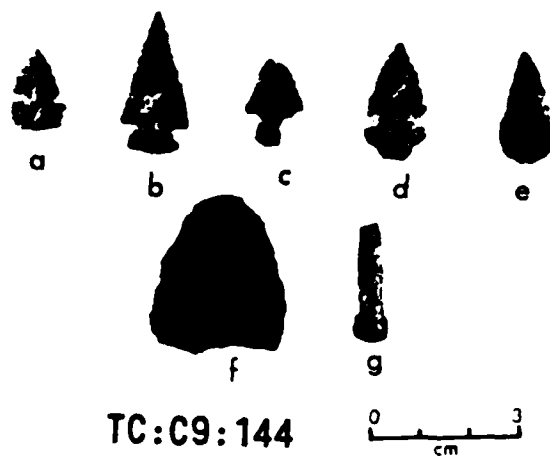


Fig. 6. TC:C9:144 Chipped Stone Artifacts

- a. Side-notched projectile point, 1-73.
- b. Corner-notched projectile point, 6-21.
- c. Stemmed projectile point, 1-6.
- d. Reworked projectile point, 1-70.
- e. Projectile point or knife, 1-5.
- f. Bifacial knife, 15-2.
- g. Drill fragment, 9-25.

Measurements in cm.			Feature & Number	Material
l	w	th		
1.8+	1.1	0.4	1-6	Argillite
1.8+	1.0+	0.3	9-25	Argillite

Reworked Projectile Point

The single specimen in this category is a side-notched point that was fashioned from a broken point. The point was initially notched also, but whether the placement was at the sides or corners can not be determined. Portions of the first set of notches are visible on the base of the reworked point. This specimen measures 2.4 x 1.3 x 0.3 cm., is of quartzite and is numbered 1-70.

PROJECTILE POINTS OR KNIVES

Twenty-eight specimens have been placed in this category. Each possesses a generally triangular outline. Each lacks evidence of notching. Two have straight basal outlines, eight are slightly convex, one greatly convex, one concave and 16 are too fragmentary to subdivide in this manner. Any of the 16 fragmentary specimens may have once possessed notches.

Measurements in cm.			Feature & Number	Material	Basal Outline	Comments
l	w	th.				
0.8+	1.5	0.3	1-3	Argillite	Straight	Tip missing
1.0+	0.7+	0.4	6-8	Quartzite	Straight	Tip missing
2.4	1.0	0.3	1-5	Argillite	S'ly convex	
3.0	1.7	0.5	1-5	Argillite	S'ly convex	
2.3	1.1	0.3	1-5	Argillite	S'ly convex	
1.5+	1.3	0.3	4-1	Quartzite	S'ly convex	Tip missing
1.2+	1.3	0.3	5-16	Argillite	S'ly convex	Tip missing
1.6+	1.5	0.4	14-1	Argillite	S'ly convex	Tip missing; surface collection

Measurements in cm.			Feature & Number	Material	Basal Outline	Comments
l	w	th				
1.2+	0.8	0.4	1-102	Argillite	S'ly convex	Tip missing
1.7+	1.5	0.4	3-35	Argillite	S'ly convex	Tip missing
2.0+	1.5	0.3	1-104	Argillite	G'ly convex	Tip missing
2.4+	1.5	0.5	9-3	Argillite	Concave	Tip missing
0.9+	0.7+	0.3	6-12	Quartzite	None	Tip only
1.6+	0.9+	0.3	1-46	Argillite	None	
1.3+	0.9+	0.3	2-2	Argillite	None	
1.3+	1.1	0.2	14-1	Jasper	None	Surface collection
2.1+	1.6	0.5	0-5	Argillite	None	Surface collection
2.3+	1.0+	0.3	5-7	Argillite	None	
1.5+	1.2	0.3	7-1	Argillite	None	
0.7+	0.7+	0.4	6-4	Quartzite	None	
1.3+	1.7	0.3	1-102	Argillite	None	
1.8+	1.3	0.7	10-1	Quartzite	None	
0.7+	0.7+	0.3	1-4	Chert	None	
1.4+	0.8+	0.2+	14-1	Argillite	None	Surface collection
1.1+	0.7+	0.2+	1-3	Argillite	None	
1.4+	1.3+	0.5	4-1	Argillite	None	
1.9+	1.2+	0.4	1-4	Argillite	None	
1.9+	1.0+	0.3	0-1	Argillite	None	Surface collection

KNIVES

The 14 specimens placed in this category present diverse dimensions and morphology. Only one, a fragment from Feature 2 with a triangular outline, demonstrates overall reduction of the thickness of the blade. The other 13 show unrefined workmanship with cutting edges along only limited portions of their outlines. The triangular knife is bifacially flaked along its outline except at its basally located fracture with retouch evident. By contrast, the cutting edges of the other 13 were produced by percussion with little to no retouching. Both unifacial and bifacial flaking was utilized. Four unifacial and four bifacial knives are considered to be complete specimens. It would appear that these 13 knives represent cutting implements that were quickly discarded with equal dispatch.

Measurements in cm.			Feature & Number	Material	Uni- or Bifacial	Comments
l	w	th				
3.3+	2.1	0.6	2-44	Argillite	Bi-	Triangular Surface collection
6.3	4.5	2.1	0-3	Argillite	Uni-	
3.3	1.5	0.8	9-22	Argillite	Uni-	
2.6	2.1	0.5	6-5	Quartzite	Uni-	
4.9	3.2	0.9	9-33	Argillite	Uni-	
2.1+	2.2	0.5	2-25	Argillite	Uni-	
2.3+	3.2	1.0+	3-34	Argillite	Uni-	
1.8+	1.1+	0.3+	2-34	Chalcedony	Uni-	
3.1+	1.6	0.5	2-25	Argillite	Uni-	
4.0	2.2	0.6	6-18	Argillite	Bi-	
3.8	2.9	1.2	15-2	Argillite	Bi-	Apache occupation
3.3	1.5	0.7	15-2	Argillite	Bi-	
4.3	3.6	0.8	3-23	Argillite	Bi-	
1.5+	3.8	0.8	1-103	Quartzite	Bi-	

SCRAPERS

This collection includes five round end and one side scraper. Each possesses a single working edge. They apparently were not modeled into any special forms and the workmanship is poor.

Measurements in cm.			Feature & Number	Material	Location of Edge	Comments
l	w	th				
3.0	2.3	1.1	6-4	Argillite	Side	Surface collection
5.5	3.5	1.2	9-11	Argillite	End	
2.9	2.2	0.7	2-38	Argillite	End	
2.9	2.5	0.9	---	Argillite	End	
2.8+	3.0	0.9	1-127	Argillite	End	
3.2+	2.7	0.6	15-2	Argillite	End	Apache collection

DRILLS

A single fragmental drill was recovered from TC:C9:144. This elongated specimen of argillite possesses a small basal protuberance. The total length measures 2.4 cm.; the complete specimen would probably measure about 3.0 cm. The shaft is diamond shaped in cross-section and measures 0.4 x 0.5 cm. The corresponding figures for the base are 0.3 and 0.7 cm. This artifact is numbered 9-25.

Ground Stone Artifacts

MANOS

Eight sandstone manos are in this collection. The two complete specimens present lengths of less than 10.0 cm., the arbitrary division between one- and two-handed manos. The six fragmentary specimens represent manos of equally short lengths. Only two are bifacial, three have pecked working surfaces and five are utilized concaves while the other three have been shaped into subrectangular outlines.

Measurements in cm.			Feature & Number	Uni- or Bifacial	Pecked?	Shaped?
l	w	th				
11.0	8.0	3.5	5-23	Bi-	One	No
12.0	9.0	3.9	1-3	Uni-	No	Yes
9.5+	9.0	4.1	1-6	Uni-	One	Yes
13.0+	11.0	5.9	2-4	Bi-	One	Yes
14.0	7.0+	5.0	9-31	Uni-	No	No
12.0+	12.5	7.5	1-94	Uni-	No	No
6.0+	11.0	5.7	3-20	Uni-	No	No
6.0+	7.0+	3.5+	3-17	Uni-	No	No

METATES

This implement is represented by eight specimens, all fragmentary and of sandstone. At least six metates are represented. The eight pieces have been grouped into four categories: three slab, two basin, one trough and two that are too fragmentary to further classify. In each instance the metates were manufactured from tabular pieces of sandstone of various thicknesses. The edges of five had been shaped by percussion or grinding. The working surface of a slab specimen had been purposely pecked. The slab types possess a working surface that is either slightly depressed or level with the adjacent edges. Basin metates demonstrate a working surface that is oval and depressed (6.0 and 6.1cm.). The trough fragment exhibits only a portion of one end, one edge and the working surface. The end is greatly upcurved and is the same height as the edge.

Measurements in cm.			Feature & Number	Type	Comments
l	w	th			
39.0+	17.2+	6.9	3-45	Slab	Pecked working surface
11.0+	7.5+	3.9	3-45	Slab	Edge shaped by grinding
34.0+	16.0+	4.8	3-43	Slab	Edge shaped by percussion
22.1+	18.5+	9.5	2-28	Basin	Edge shaped by percussion
20.3+	20.8+	7.9	1-10	Basin	
7.0+	4.6+	4.1	10-1	Fragment	
15.2+	15.0+	3.7	1-43	Fragment	Edge shaped by grinding
24.2+	21.5+	6.7	6-22	Trough	Edge shaped by percussion and grinding

STONE BEAD

One white circular stone bead was located in Feature 1 (number 1-123). Its thickness is 0.2 cm. and has an outside diameter of 0.5 cm. Its petrographic composition is unknown.

STONE PIPES

This artifact category is represented by four specimens. Three of these are whole but unfinished elbow pipes that were found together in the fill of Room 1. Each of the three represents a different "stage" of manufacture (Fig. 7). None possess drilled holes. The angle measured between the axes of the stem and bowl approximates 135 degrees for each of the three. The finished bowl heights (measured from the elbow) for each is about four cm.; finished stem lengths (also from the elbow) are approximately 4.0, 4.5 and 5.0 cms. respectively. Maximum bowl diameters occur at the lip and approximate 2.5 to 3.0 cm. These three appear to be of the same, but unknown, petrographic composition. All have the same specimen number: 1-5.

The other specimen represents a fragment of the side wall of the bowl including the lip. The wall thickness ranges from 0.1 to 0.3 cm. The bowl diameter at the lip would be 1.5 cm. This highly polished stone fragment is of a harder material than the other three, but the composition is unknown. The specimen number is 3-31.

MISCELLANEOUS STONE

Three small pieces of graphite were retrieved from TC:C9:144. Each is slightly smaller than a walnut. One had been abraded to produce a single work facet (number 5-1). The specimen numbers of the other two are 1-10 and 2-3.

A small nodule of hematite with a work facet is included in the artifact inventory. Numbered 1-26, it is about 1.5 cm. in three dimensions.



TC:C9:144



Fig. 7. TC:C9:144 Three Unfinished Stone Pipes, 1-5

A small lump of coal (1-28) was recovered near the soil surface and is considered to be a recent intrusion into this prehistoric site.

Bone and Antler Artifacts

AWLS

No bone awls or fragments thereof were retrieved from TC:C9:144.

ANTLER AND MISCELLANEOUS BONE ARTIFACTS

Two antler tine fragments are presumed to be artifacts. Both are poorly preserved and presently demonstrate no evidence of utilization, however. Their numbers are 1-99 and 1-103.

A small piece of shaped bone was recovered from the floor of the structure (3-40). It is subrectangular in outline and measures 2.7 x 0.9 x 0.2 cm. Its function is unknown although it may be an unfinished pendant or gaming piece.

BONE BEADS

Seventeen tubular bone beads or fragments thereof represent a minimum of 15 beads. On the basis of outside diameter, 14 have been classed as small (less than 0.50 cm.) and one as medium (0.50-0.70 cm.). Each was manufactured from the long bone of a small mammal, possibly rabbit.

Measurements in cm.		Feature & Number	Comments
l	O.D.		
0.8	0.3	3-5	
1.2	0.4	1-115	Fragment
1.9	0.4	1-3	
1.2	0.4	1-11	Two fragments
1.8+	0.4	2-4	Fragment
0.7	0.2	3-10	Fragment
0.9+	0.4	5-11	Fragment
1.2+	0.3	1-37	Fragment
1.3+	0.4	5-21	Two fragments
1.8	0.4	1-46	
0.8+	0.2	1-4	Fragment
0.9+	0.3	1-4	Fragment
0.8+	0.4	1-4	Fragment; burned
1.6	0.3	1-5	Two fragments
1.2	0.5	1-8	

Shell Artifacts

Three fragments of shell of undetermined species are included here even though none displays any evidence of cutting or utilization.

Measurements in cm.			Feature & Number
l	w	th	
2.2	1.5	0.4	9-11
1.7	1.0	0.1	5-15
0.7	0.3	0.1	1-3

Ceramics

A total of 251 ceramic sherds were recovered from this site. Of these, 29 are assigned to the prehistoric structure, 114 are historic Apache and 108 are a historic Spanish ware. One Gallup Black-on-white, three unidentified whiteware, 14 Taos Incised and 11 Stamper Cordmarked represent the prehistoric Sopris Phase occupation. Cimmaron Micaceous, a historic Apache ware, is illustrated by 114 sherds. The presence of

a historic Spanish ware, Casitas Red-on-brown, is indicated by 108 ceramic fragments.

GALLUP BLACK-ON-WHITE

Mr. Stewart L. Peckham of the Research Laboratory, Museum of New Mexico, Santa Fe, has identified one sherd as Gallup B/W. This sherd is from the fill of the house structure (F.3).

UNIDENTIFIED WHITEWARE

Three fragments of whiteware cannot be identified to precise type. Two are from F.5 and one is from the surface collection.

TAOS INCISED

Fourteen sherds have been classed as locally manufactured Taos Incised. Only five display surface decoration (four with parallel incised lines and one with vertical rows of fingernail punctates). The other nine are body sherds and could be classed as Sopris Plain. They were not so classified because the presence of Sopris Plain at TC:C9:144 has not been demonstrated. Five are from the house (three decorated and two undecorated), one from F.2, two from F.5, three from F.6 (one decorated), one from F.10 and the fingernail punctate is from the soil surface of F.12.

STAMPER CORDMARKED

Dr. Robert E. Bell, University of Oklahoma, has examined a representative collection of cordmarked sherds from sites in the Trinidad, Colorado region including TC:C9:144. He inspected six of 11 from this site and

classified them as Stamper Cordmarked. I have compared the site total and find them to be identical. Six are from within the structure, three are from F.2, one is from the surface collection and the exact provenience is unknown for the eleventh.

CIMARRON MICACEOUS

Dr. James H. Gunnerson, Northern Illinois University, examined representative samples of micaceous wares from sites in the Trinidad, Colorado region. Those from TC:C9:144 were identified as Cimarron Micaceous. Sixty of the 114 sherds were located on the soil surface; largely centered around Features 12 and 15. Excavation revealed the following sherds at shallow subsurface levels (less than five inches): F.5, six and F.12, 46.

CASITAS RED-ON-BROWN

The classification of 108 sherds from TC:C9:144 is by the author. Ninety-six were collected from the soil surface largely north and west of the prehistoric structure. The 12 retrieved through excavation were found within four inches of the surface: one in F.5, one from F.10, one from F.14 and nine from F.15. The presence of an unnamed polychrome variety of Casitas Red-on-brown (Dick 1968:81) is indicated by five with a smudged dark gray interior. One of these polychrome fragments is from F.10; four are from the surface collection.

Summary and Conclusions: TC:C9:144

The evidence for man's use of this alluvial terrace falls into four cultural-temporal categories: 1) prehistoric Sopris Phase, 2) historic Apache, 3) historic Spanish and 4) modern historic. These cultural manifestations will be treated in chronological order.

The Sopris Phase house was constructed of stone masonry with three stone masonry interior walls and one adobe (mud) interior wall. Only two wall features were defined: a floor level ventilator and a floor level doorway. No floor features were delineated in the earth floor although a fire pit may have existed in the room with the wall ventilator. The roof was composed of wood and earth, probably a cribwork upon which earth (possibly sod) was placed. This structure is more reminiscent of Southwestern Pueblo architecture than other Sopris Phase sites.

The artifact types associated with the occupation of this prehistoric house are generally consistent with the Sopris Phase. As McCabe (1973) indicates, the total site configuration points to an economy based upon hunting and supplemented by gathering. High percentages of projectile points and knives are associated with this occupation while hide working tools are nearly absent. There was direct evidence for both hunting and gathering. There was no direct evidence for horticulture although the incidence of such is rare in Sopris Phase sites. However, the incidence of storage containers is minimal with a relatively low percentage of ceramic sherds present and subsurface pits apparently absent.

The faunal and floral evidence indicates habitation from Spring through early Fall but year-round occupation cannot be ruled out.

Relatively few species were hunted. One of these, pronghorn, is present in higher numbers than other Sopris Phase sites and probably indicates a greater exploitation of the Plains environment to the east. The comparatively high number of plant seeds associated with the occupation of this structure is not necessarily an indication of greater dependence upon gathered wild foods, but probably reflects the recovery techniques utilized.

Only 29 ceramic fragments are attributed to the occupation of this four-roomed house. Fourteen of these were a locally (Trinidad region) produced version of Taos Incised. The four Rio Grande manufactured (one Gallup B/W and three unidentified whiteware) may have been imported as the occupants household effects. The 11 Stamper Cordmarked sherds are regarded as trade items from the Southern Plains. Whether their acquisition by Sopris Phase peoples was by direct or indirect contact is not known.

The extant ceramics associated with this house can be utilized to place its occupation near the middle of the Sopris Phase, A.D. 1150 to 1250 or 1300 (Ireland 1971:50). Based upon tree-ring dating, Breternitz (1966:76) dates Gallup B/W as an indigenous type and indicates that it lasts as a trade produce possibly as late as A.D. 1200. Stamper Cordmarked is associated with the Panhandle Aspect which has been dated by a radiocarbon study (Baerreis and Bryson 1966) at approximately A.D. 1175 to 1485. Thus ceramic cross-dating indicates a date of ca. A.D. 1200 for the habitation of this structure.

The presence of sherds of Cimarron Micaceous probably indicates the utilization of this terrace by Apache Indians, ca. A.D. 1750?-1900? (Gunnerson 1969:33-34). These sherds at TC:C9:144 were found associated with bones of bison or cow and domestic pig and some diffuse charcoal

in Features 12 and 15. Evidence of possible association with architecture was not discovered. The occurrence of Cimarron Micaceous at other nearby locales is noted in this report (see Trinidad Reservoir Area Sites).

A third occupation of the TC:C9:144 terrace may be indicated by the presence of Casitas Red-on-brown and one of its unnamed polychrome varieties. The manufacture of this Spanish (-American) ware is dated by Dick (1968:81) at perhaps slightly before A.D. 1672 to ca. 1890 and is considered indigenous to this locale. These sherds were not in association with any other material culture at TC:C9:144.

A modern historic occupation perhaps as recent as ca. A.D. 1900 was evidenced by the foundation stones of a house. Designated Feature 13, the cultural debris surrounding this architectural remnant was representative of industrial manufacture.

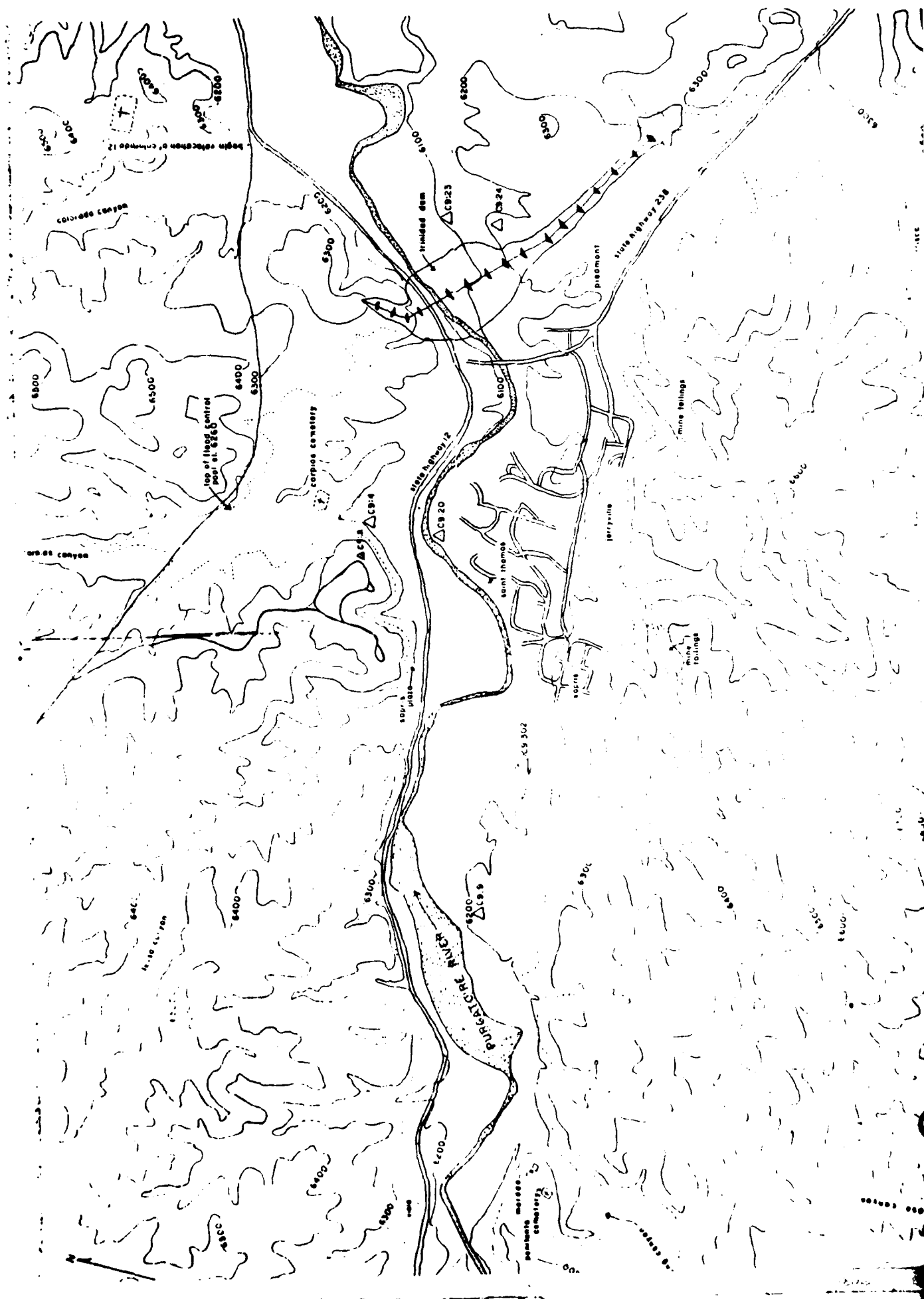
Three limited activity areas (Features 14, 16 and 17) were located at TC:C9:144. Each was a concentration of lithic debitage upon the soil surface. It is postulated that the location for each of these flint-knapping areas was selected on the basis of the available view. This lithic waste cannot be positively affiliated with any of the occupations of this terrace.

Site TC:C9:20
Area A-B Jacal house

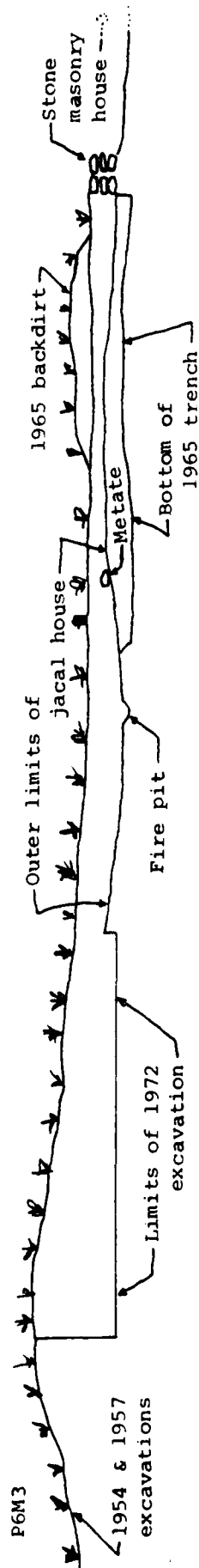
The burned remnants of this jacal house were discovered in 1971 while expanding a 1965 trench. The 1971 research plan under the direction of this author called for extending this trench from the Area A stone masonry house northward into Herbert W. Dick's 1954 and 1957 excavations in Area B (P6M3) to correlate the cultural stratigraphy of the four known occupations of these two Areas. The results of all pre- 1971 field work at site TC:C9:20 and its location are reported by Ireland and Wood (1973).

Evidence of jacal or wattle and daub style architecture was encountered in the northern portion of Area A and the contiguous southern portion of Area B. A fire-reddened and blackened surface with overlying chunks of oxidized soil (daub) with impressions of closely spaced parallel poles were discovered in Grid 24H along with an in situ post. Additional daub and a collared fire pit (accidentally bisected) were encountered in Grid 26H which prompted lateral expansion of the trench. Since the concentration of cultural debris was greater on the east side of this N-S trench, this expansion proceeded eastward. The northward progression of the exploratory trench proceeded into Grid 31H, but much more cautiously than before. This exploratory trench in the mound of Area B reached only shallow depths and did not define the cultural stratigraphy of the three stratified occupations there. The 1971 lateral expansion of the trench did not completely define the jacal house, but did yield conclusive evidence of its existence.

Excavation in 1972 defined the house structure and located a possible



TC:C9:20



North-South Profile
Junction of Columns G & H
Facing East



0 5 10 Feet

pit adjacent to this house. However, our 1972 field work failed to correlate the cultural strata in Areas A and B. The house was circular, nearly 20 feet in diameter, with two fire pits (one collared) and a pit as floor features. A test pit at the eastern edge of the floor of this house encountered an apparent pit whose use and abandonment pre-dated the jacal house. This structure, as all others at TC:C9:20, have been placed in the Sopris Phase, A.D. 1150 to 1250 or 1300 of the Upper Purgatoire Complex (Ireland 1971).

Method of Excavation

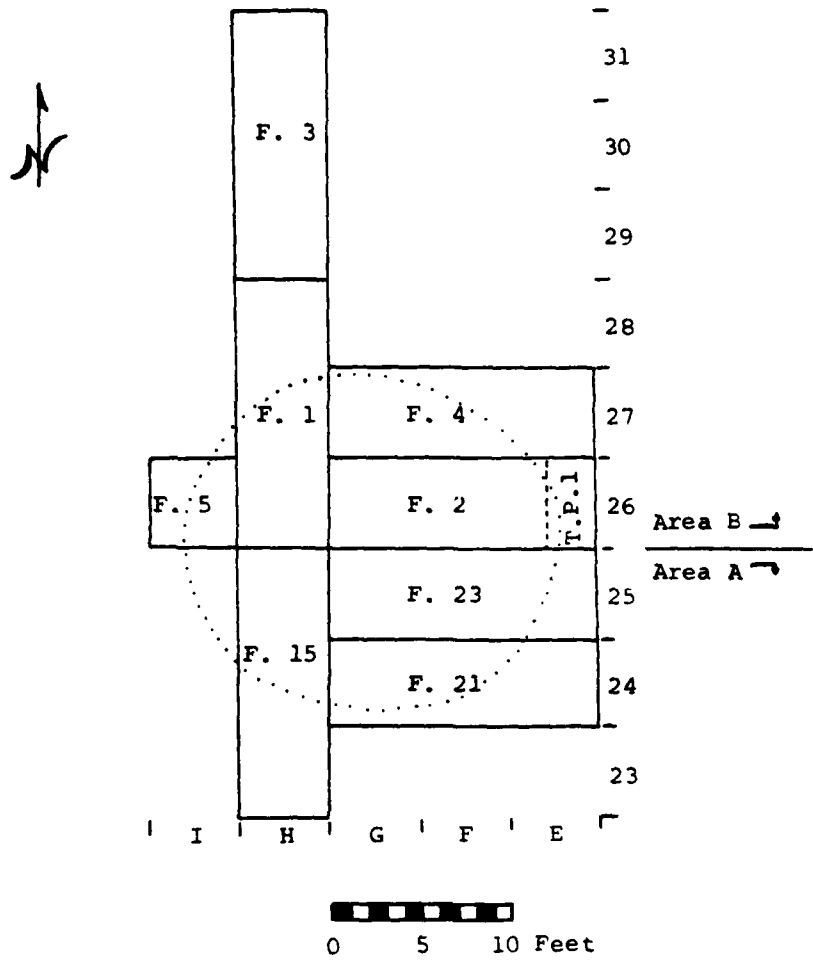
Galen Baker's work in Area A in 1964 and 1975 utilized an arbitrary horizontal grid system with grids five feet square. This system was extended northward into Area B and was used for horizontal control in all 1971 and 1972 excavation. Because a precise spatial distinction had not been previously made, in 1971 I arbitrarily designated the E-W dividing line between Areas A and B as the juncture of Grid Columns 25 and 26. The 1965 N-S trench which was subsequently expanded was three feet wide and reached the northern limits of Area A in Grid 25H.

Feature designations were made prior to our excavation. This practice proved nearly valueless because the jacal structure extended through portions of seven features; for more specific control was maintained in recording observations and provenience of collected specimens. All collected specimens were labeled using a slightly modified Museum of New Mexico system (Dittert and Wendorf 1963). All excavational forms utilized conformed to the Museum's.

Only hand tools were employed in excavation which proceeded by arbitrary three and six inch levels except where cultural stratigraphy

TC:C9:20/A-B

ASSIGNMENT OF FEATURES AND LIMITS OF EXCAVATION



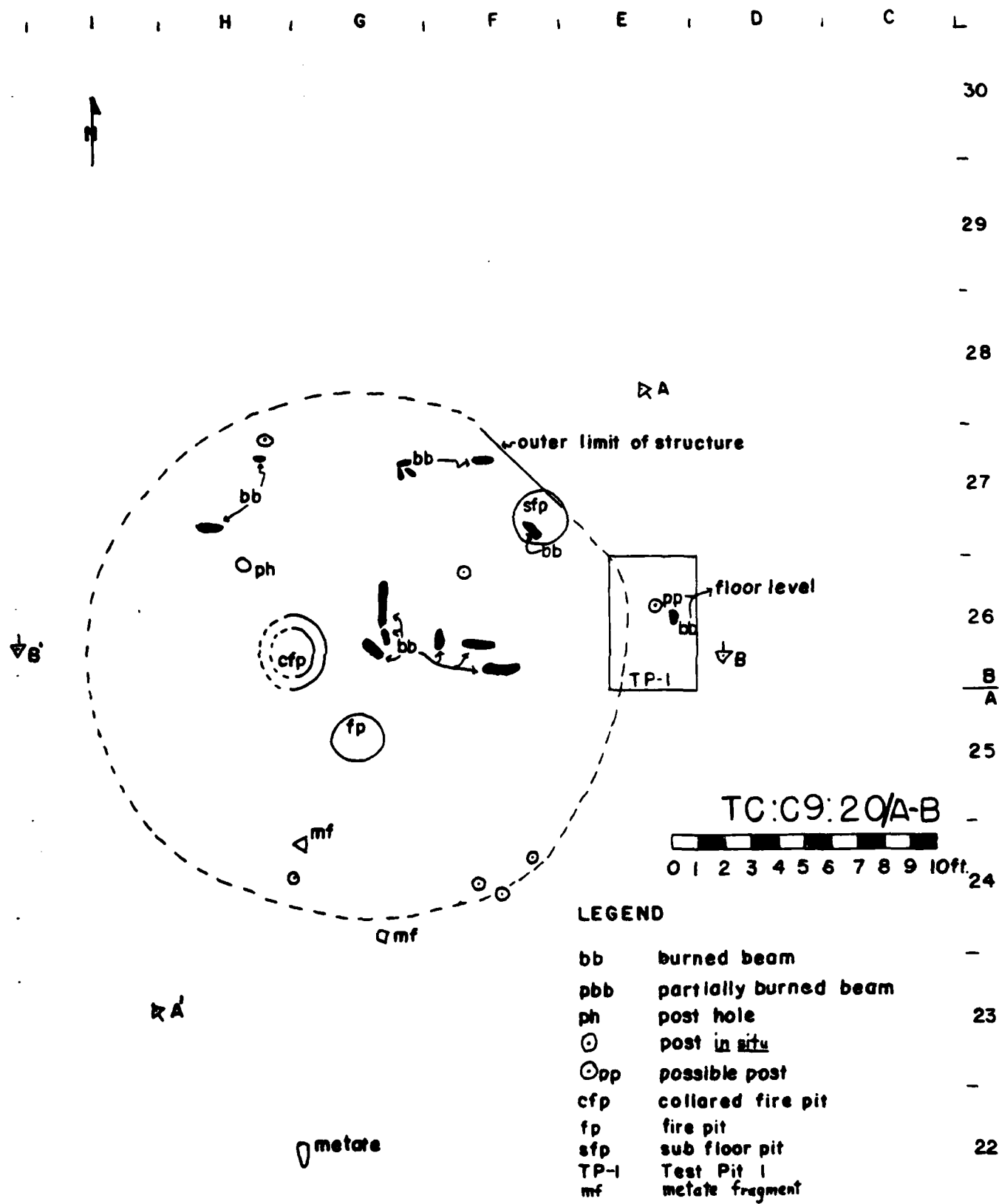
allowed. All excavated material was screened. Limited samples (floor level and contents of subfloor pit) were subjected to water separation techniques as described for site TC:C9:144. All other material was screened dry using 1/4 inch wire screen.

The Architecture

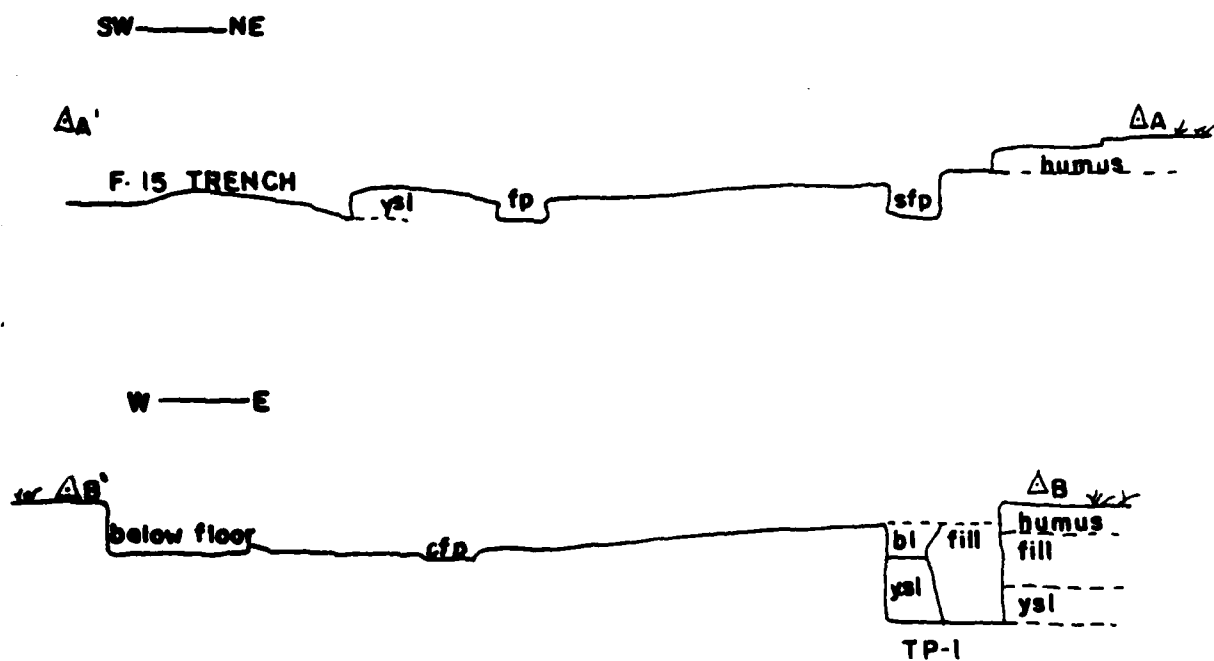
Numerous specimens of daub, charred wood and in situ posts revealed that the combined walls and roof of this one-roomed circular house were constructed by the jacal or wattle or daub method. The total structure was probably dome-shaped and was supported by posts near the center of the floor.

In 1971 and 1972 six in situ posts, one post hole (socket) and one possible post were encountered. One in situ post and one post hole were situated north of the fire pits and probably supported much of the weight of the superstructure. Their configuration suggests that an additional two or more internal support posts may have existed south of the central fire pit. The in situ center post in Grid 26F was 10 inches in diameter, extended 18 inches below floor level and was charred along its entire length. The central post hole in Grid 26H had a floor diameter of 11 inches and a subfloor depth of 16 inches. The post in 27h was much larger in diameter (7 inches) than the other wall/roof posts and was more deeply socketed (23 inches). It was charred along its entire length. The fill of this post hole contained a bone bead and a burned bone awl (both given specimen number TC:C9:20/B-1-52). The possible post in Grid 26E was stratigraphically superimposed over the abandoned pit. This wall/roof post had a diameter of one and one-half inches, had been disturbed by rodents and was charred on all surfaces present. The three

Fig. 11a



CEW -



LEGEND

ysl	yellow sandy loam
bl	brown loam
cfp	collared fire pit
sfp	sub floor pit
fp	fire pit
ΔA	Datum A

TC:C9:20/A-B

0 1 2 3 4 5 6 7 8 9 10ft.

CEW

wall/roof posts in Grid 24 F displayed the following data (in order, from east to west): diameter at floor 1 1/4, 2 and 1 1/2 inches and extension below floor 5 1/2, 14 and 8 inches. Each was charred along its entire length. The only other wall/roof post was discovered in Grid 24H, had a diameter of 3 3/4 inches, was socketed to a depth of five inches and charred only at the level above the floor and on its butt end. This pattern of posts burned partially or entirely on their subfloor portions probably indicates they were subjected to fire prior to their use in construction. Whether this treatment had the intended purpose of hardening the wood or trimming splinters or both is not known. It would appear that few of the wooden wall elements that reached the ground were placed in holes though many of the post holes have probably been obscured by time. No entrance was defined.

Oxidized daub with impressions of materials used in construction were retrieved from the fill of the house. Several of these display the moulds of closely spaced poles. These poles were about one to three centimeters in diameter and parallel to each other. Other pieces demonstrate partial prints of grass blades. One chunk possesses the mould of a portion of a piece of wood six to eight centimeters in diameter. Each specimen is oxidized and believed to represent architectural daub.

The house structure was set over a saucer-shaped depression in the soil. The lowest point on the floor, between the fire pits, was 16 inches below the floor edge. Evidence in Grids 28H and 27F indicated this floor surface was excavated into the slope of the mound to the north. Thus as much as five inches of the lower wall was the native unprepared soil. The floor was native soil packed through use and was reddened and blackened by the conflagrant superstructure which contributed to its generally

well preserved state. The lower native soil walls were similarly red and black. The limits of the burned floor nearly matched the circular floor depression and the pattern of peripheral wall/roof posts; each showed an approximate diameter of 20 feet. Interior floor space would approximate 300 square feet.

Floor features in addition to the previously mentioned post holes included two fire pits and a small subfloor pit. The fire pit in Grids 26G and 26H possessed a raised collar of earth (mud). The collar was elevated one to two inches above the level of the floor. The diameter of this pit inside the collar was 21 inches, outside diameter was 29 inches and the depth 6 1/2 inches. All interior surfaces were fire-reddened. The contents of this fire pit were, in descending order of volume, architectural daub, charcoal and some ash. The fire pit in Grid 25G was without a collar, had a diameter of 22 inches and a depth of 7 1/2 inches. The walls were nearly vertical. All interior surfaces were fire-reddened. This pit contained a fill of brown loam flecked with charcoal with several chunks of charcoal and five thermal-cracked rocks (about orange sized) resting on the bottom. The subfloor pit was located adjacent to the excavated native soil wall in Grid 27F. Its diameter at the floor level was 22 inches; diameter at its bottom was 20 inches; depth below floor 12 inches. The interior surfaces displayed no evidence of heat. It contained a dark brown loam with mixed charcoal and oxidized clay which are interpreted as architectural remnants.

Stratigraphy

The floor surface near the center of the house was 26 inches below the 1971 soil surface. At its northern edge, the floor was 27 inches



Fig. 12. TC:C9:20/A-B jacal house in process of excavation, 1971. Bisected collared fire pit in foreground; exposed architectural daub above it. Charred wood behind north arrow.

below the soil surface, only 11 inches at its southern edge and 12 inches at both the eastern and western limits. The "fill" of the house consisted largely of daub and charcoal two to eight inches above the floor surface. These architectural remnants were surrounded by a brown loam which extended up to the level of the humus layer.

Adjacent to the jacal house, excavation showed that the direct evidence for that structure was greatly diminished: the house burned and largely fell in upon itself. A discrete use surface associated with the jacal house could be defined only along the southern edge of the structure. Elsewhere its stratigraphic position was confirmed by small concentrations of cultural debris: in contact with sterile yellow loam. Despite the label "sterile", this yellow loam was occasionally lightly stained by charcoal to very shallow depths. Brown loam extended upward from the yellow loam to the humus zone. This brown loam is constant over the burned remains of the jacal house, but with less evidence of cultural occupation. Excavation in the northern end of the N-S exploratory trench (north of the jacal house and south of the 1954 and 1957 excavations in the Area B mound) revealed only discontinuous cultural deposits. These deposits were highly localized and except in Grid 31h (contiguous to excavations nearly two decades earlier) could not be positively assigned to either of the three occupations in Area B (P6M3) or the occupants of the jacal house.

In Grid 26E, Test Pit 1 revealed a stratigraphic composition unlike elsewhere in the 1971 and 1972 excavations. That Test Pit 1 cut through cultural deposits pre-dating the construction of the jacal house was evident because these deposits were under the edge of the floor. Fig. 116 diagrammatically represents the strata encountered in this test pit.

In this illustration the label "fill" indicates a dark brown culturally deposited loam which contained artifacts and was heavily stained with charcoal. The facts are difficult to interpret -- the best, but unstable, interpretation is a pit of undetermined nature and proportions which was abandoned and filled prior to the construction of the Area A-B jacal house.

Artifact Analysis and Classification: TC:C9:20/A-B

The artifacts described here were retrieved in 1971 and 1972. The vast majority are assigned to the occupation of the jacal structure. A small number are assigned to an undetermined occupation of P6M3 which lies immediately to the north. Those artifacts whose exact provenience is unknown (E.P.U.) cannot be assigned to the occupation of a specific structure although they probably are of Sopris Phase origin. Other artifacts from Site TC:C9:20 have previously been assigned to the contents of other habitation structures at TC:C9:20 (Ireland and Wood 1973).

Chipped Stone Artifacts

PROJECTILE POINTS

This collection includes a total of 39 projectile points. Of these, 13 are triangular side-notched, 18 are triangular corner-notched, and eight are reworked. Stemmed points are not represented.

Triangular Side-notched Projectile Points

The notches of these points are paired and placed near the base. The basal outline of five are straight, seven have a slightly convex base and one has a greatly convex base.

Measurements in cm.			Area & Number	Material	Basal Outline	Comments
l	w	th				
2.2	1.5	0.4	B-4-3	Argillite	Straight	
1.2	1.1	0.3	B-EPU-8	Argillite	Straight	Surface collection
1.0+	1.1	0.4	B-EPU-8	Argillite	Straight	Surface collection
0.6+	1.2	0.2	B-EPU-8	Argillite	Straight	Surface collection
1.7+	1.1	0.3	B-EPU-8	Quartzite	Straight	Serrated edges; Surface collection
1.3	1.0	0.2	B-EPU-8	Chalcedony	S'ly convex	Surface collection
1.8+	0.9	0.2	A-21-8	Argillite	S'ly convex	
1.6+	1.1	0.3	A-21-2	Argillite	S'ly convex	
1.4	1.0	0.3	B-EPU-8	Quartzite	S'ly convex	Surface collection
1.9	1.1	0.3	B-1-25	Argillite	S'ly convex	
1.5	1.1	0.3	B-4-1	Chalcedony	S'ly convex	
1.8	1.1+	0.3	B-2-36	Quartzite	S'ly convex	
1.2	1.1	0.4	B-EPU-12	Argillite	G'ly convex	Surface collection

(a plus (+) sign indicates the specimen is incomplete in that dimension.)

Triangular Corner-notched Projectile Points

Three of the 19 possess a straight base, seven have a slightly convex base, one has a greatly convex base, one has a concave base and seven are without basal edges.

Measurements in cm.			Area & Number	Material	Basal Outline	Comments
l	w	th				
1.9	1.1	0.3	B-3-19	Argillite	Straight	Serrated edges; P6M3 occupation
2.2	1.5	0.4	B-1-25	Argillite	Straight	
1.3+	1.2	0.2	B-4-27	Jasper	Straight	
1.7	1.2	0.4	B-EPU-8	Quartzite	S'ly convex	Surface collection
1.8	1.3	0.4	B-EPU-14	Quartzite	S'ly convex	Surface collection
1.4+	1.3	0.5	B-4-28	Argillite	S'ly convex	
2.2+	1.4	0.5	B-4-28	Quartzite	S'ly convex	
1.8	1.3	0.4	B-4-27	Argillite	S'ly convex	
1.9	1.5	0.3	B-1-21	Argillite	S'ly convex	
1.9	1.1	0.2	B-3-20	Chalcedony	S'ly convex	P6M3 occupation
1.6	1.2	0.3	B-4-21	Quartzite	G'ly convex	Subfloor pit
0.9+	1.0	0.5	B-3-39	Jasper	Concave	P6M3 occupation
1.7+	1.2	0.3	B-EPU-3	Argillite	None	Serrated edges; Surface collection

Measurements in cm.			Area & Number	Material	Basal Outline	Comments
l	w	th				
1.4+	1.3	0.2	B-i-18	Argillite	None	
2.0+	1.2	0.3	B-4-3	Argillite	None	
2.1+	1.4	0.3	B-EPU-8	Argillite	None	Surface collection
1.5+	1.1	0.2	B-EPU-8	Argillite	None	Surface collection
1.2+	1.1	0.2	B-EPU-8	Chalcedony	None	Surface collection
1.4+	1.4	0.5	B-EPU	Argillite	None	Surface collection

Reworked Projectile Points

The four specimens in this category represent projectile points which had broken across their notches and had been reworked by the addition of supplemental notch(es). All probably secondarily functioned as hafted knives.

Measurements in cm.			Area & Number	Material	Number of functional notches (by side)
l	w	th			
1.3	1.1	0.2	B-EPU-14	Argillite	2 + 2 (one original; surface collection)
1.1	1.0	0.3	B-EPU-8	Argillite	1 + 1/2; surface collection
2.7	1.5	0.3	B-3-51	Argillite	1 1/2 + 1/2 (P6M3 occupation)
1.5	1.1	0.3	B-i-12	Argillite	1 1/2 + 1 1/2

Projectile Points Too Fragmentary to Classify

Each of these four specimens is fragmentary and shows evidence of notching although whether side- or corner-notched cannot be determined. None has been reworked after breaking.

Measurements in cm.			Area & Number	Material	Comments
l	w	th			
3.0+	1.4	0.4	B-i-39	Argillite	
1.7+	1.2	0.3	B-2-20	Quartzite	
0.9+	1.4	0.3	B-EPU-9	Chalcedony	Surface collection
0.5+	0.9+	0.1+	B-EPU-3	Jasper	Surface collection

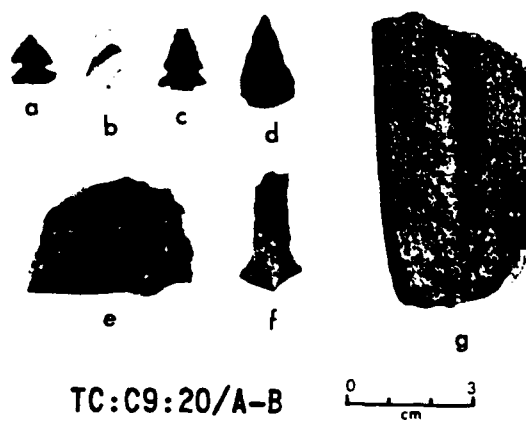


Fig. 13. TC:C9:20/A-B Chipped Stone Artifacts

- a. Side-notched projectile point, B-EPU-8.
- b. Corner-notched projectile point, B-3-20.
- c. Reworked projectile point, B-1-12.
- d. Projectile point or knife, B-3-14.
- e. Scraper fragment, B-4-27.
- f. Drill fragment, A-23-24.
- g. Abrader, B-2-39.

PROJECTILE POINTS OR KNIVES

Thirty-nine specimens have been placed in this category. Ten of these, four complete and six fragmentary, clearly did not possess notches. The other 29 are fragments that may or may not have been notched in their complete state.

Measurements in cm.			Area & Number	Basal Outline	Material	Comments
l	w	th				
2.4	1.4	0.4	B-2-34	S'ly convex	Argillite	Surface collection P6M3 occupation
1.4	1.4	0.3	B-EPU-14	S'ly convex	Argillite	
2.2	1.3	0.4	B-3-14	S'ly convex	Argillite	
1.2	0.9	0.3	B-4-19	S'ly convex	Obsidian	Surface collection
0.9	1.2	0.3	B-EPU	S'ly convex	Jasper	
0.8	1.2	0.3	B-EPU	S'ly convex	Jasper	
1.0+	1.7	0.7	B-EPU-9	Straight	Argillite	Surface collection
1.5+	1.4	0.4	B-LPU-9	S'ly convex	Argillite	Surface collection
1.5+	2.5	0.7	----	S'ly convex	Argillite	Surface collection
1.7+	1.5	0.4	A-21-35	S'ly convex	Argillite	Surface collection
1.7+	1.2+	0.2+	A-23-24	None	Argillite	
1.3+	0.9+	0.2+	B-2-36	None	Argillite	
1.1+	1.1+	0.3+	B-5-2	None	Argillite	Surface collection
1.5+	1.1+	0.3+	B-2-31	None	Jasper	
1.7+	1.5+	0.3	B-3-31	None	Argillite	
0.7+	1.8+	0.4	B-EPU-9	None	Argillite	Surface collection
1.6+	1.4+	0.4+	B-4-3	None	Argillite	
2.3+	1.8	0.7	B-EPU-13	None	Argillite	
1.4+	1.2+	0.2+	B-4-3	None	Argillite	Surface collection
1.6+	1.2+	0.3+	B-EPU-9	None	Jasper	
1.4+	1.4+	0.2+	B-2-20	None	Argillite	
1.7+	1.7	0.3+	B-EPU-9	None	Argillite	Surface collection
1.7+	1.2	0.3	B-EPU-9	None	Argillite	Surface collection
2.2+	1.3+	0.3+	B-EPU-9	None	Argillite	Surface collection
1.8+	1.2	0.3	B-EPU-9	None	Argillite	Surface collection
1.7+	1.1+	0.3+	B-3-45	None	Quartzite	P6M3, L.II
1.2+	0.8+	0.3+	B-3-45	None	Argillite	P6M3, L.II
1.6+	0.6+	0.2+	A-21-32	None	Argillite	Surface collection
1.7+	0.9+	0.2+	A-21-32	None	Argillite	
1.6+	1.4+	0.3+	A-21-24	None	Argillite	
1.7+	1.1+	0.3+	B-2-32	None	Quartzite	Surface collection
1.3+	1.3+	0.3+	B-EPU-14	None	Chalcedony	
1.2+	1.1+	0.2+	B-EPU-9	None	Argillite	
1.1+	0.9+	0.3+	B-EPU-12	None	Argillite	Surface collection
2.5+	1.0+	0.3+	B-2-14	None	Argillite	P6M3 occupation
1.2+	0.9+	0.3+	B-2-9	None	Argillite	
2.2+	1.8+	0.6+	B-3-50	None	Argillite	
1.9+	0.9+	0.4	A-23-8	None	Quartzite	P6M3 occupation
2.5+	1.4+	0.3+	B-3-8	None	Argillite	

KNIVES

Six fragmentary specimens are placed in this category. The unbroken edges of all are bifacially chipped and all but one, classed as amorphous, show reduction in blade thickness. Four appear to be triangular in outline, one ovoid outline and one appears to be without special form and has been called amorphous.

Measurements in cm.			Area & Number	Material	Form	Comments
l	w	th				
1.2+	2.3+	0.3+	A-21-5	Argillite	Triangular	Surface collection P6M3 occupation
1.4+	1.9+	0.5+	B-EPU-13	Argillite	Triangular	
2.0+	1.5+	0.4+	B-3-29	Argillite	Triangular	
2.4	1.8+	1.5	B-4-7	Argillite	Triangular	
2.0+	1.3+	0.4	A-21-18	Argillite	Ovoid	
2.4+	0.8+	0.4+	A-21-5	Argillite	Amorphous	

SCRAPERS

This collection includes one square end, ten side and three combination side and end scrapers. The workmanship exhibited by these specimens ranges from fair to poor. Several exhibit striking platforms. Most were shaped only by percussion with just enough pressure flaking to produce a working edge. One of the combination scrapers possesses two edges and one end with the necessary morphology while the other two have only a single side and a single end. Each of the side scrapers has only a single edge that would function as a scraper.

Measurements in cm.			Area & Number	Material	Location of edge	Comments
l	w	th				
5.3	3.5	1.4	B-4-27	Argillite	End	
5.1	3.0	1.5	B-2-28	Argillite	Side	
2.3	1.5	0.4	B-1-8	Argillite	Side	
5.8	2.7	1.1	B-2-34	Argillite	Side	
6.9	5.3	0.6	A-23-27	Argillite	Side	
2.3+	3.2	0.8	B-4-30	Argillite	Side	
4.2	3.2	2.1	A-23-24	Argillite	Side	
3.3	3.0	1.1	B-3-9	Argillite	Side	P613 occupation
3.3	3.2	1.0	B-EPU-5	Argillite	Side	Surface collection
4.5	2.0	1.2	B-EPU-5	Argillite	Side	Surface collection
4.0	2.5	0.7	A-21-36	Argillite	Side	
2.8+	3.9	0.8	B-4-27	Quartzite	2S & 1E	
3.5	1.5	0.5	B-1-40	Argillite	1S & 1L	
4.2	2.6	1.4	B-2-39	Argillite	1S & 1E	

DRILLS

Three fragments exhibit expanded bases, one fragment is the shaft only and one specimen is an elongate drill in its initial stage of manufacture. When finished it probably would not have possessed a basal protuberance.

Measurements in cm.			Basal		Area & Number	Material	Comments
l	w	th	w	th			
2.9+	0.8	0.6	1.5+	0.9	A-23-24	Argillite	Expanded base
1.9+	0.7	0.5	1.1	0.5	B-3-12	Argillite	Expanded base; P613 occupation
1.7+	0.9	0.6	1.7	0.6	A-21-37	Argillite	Expanded base
1.9+	1.0	0.5	-	-	B-5-1	Argillite	Shaft only
3.4	1.1	0.7	1.0	0.7	B-surface	Argillite	Unfinished

MISCELLANEOUS CHIPPED STONE ARTIFACTS

This collection includes a small graver with a bifacially chipped point whose length measures 0.5 cm. Only the point demonstrates secondary flaking.

Two unusual multi-purpose implements were recovered from within the jacal structure. One (B-2-34) exhibits a drill shaft 2.1 cm. long with a large expanded base that is nearly twice as long. One edge of this base is bifacially chipped and has been used as a knife while the other edge of the base is unifacially chipped and was used as a scraper. The other multi-purpose tool (B-5-1) also had a drill (currently broken) and an expanded base. One edge of the base is a scraper.

Measurements in cm.			Area & Number	Material	Comments
l	w	th			
2.4	1.5	0.4	B-EPU-10	Argillite	Graver; surface collection
6.0	2.5	1.0	B-2-34	Chalcedony	Drill-knife-scraper
3.5+	1.8	1.0	B-5-1	Argillite	Drill-scraper

Ground Stone Artifacts

MANOS

Eight specimens are placed in this artifact category. Four have (or probably would have if complete) lengths of less than 18.0 cm. and have been called one-handed manos. Further criteria for analysis was: a) number working surfaces, b) presence/absence of pecked working surface(s), c) presence/absence of intentional shaping of outline.

Measurements in cm.			Area & Number	1 or 2 Handed	Uni- or Bifacial	Pecked?	Shaped?	Material
l	w	th						
16.0	9.5	4.7	A-23-24	One	Uni-	Yes	Yes	Conglomerate Sandstone; P6M3 occupation
7.2+	8.4	3.1	B-3-4	One	Uni-	No	No	
16.2	10.8	4.4	A-21-44	One	Bi-	No	No	Conglomerate Diorite
10.0+	11.0+	5.0	B-5-1	One	Bi-	No	Yes	
24.0	14.0	4.2	A-23-21	Two	Uni-	No	Yes	Basalt Sandstone; P6M3 occupation
15.0+	9.0+	1.7+	B-3-50	Two	Uni-	No	No	
18.5	10.3	4.3	B-4-9	Two	Bi-	Yes-2	Yes	Conglomerate Conglomerate
22.0	15.0	3.6	A-23-24	Two	Bi-	Yes-2	Yes	

METATES

This implement is represented by five specimens, all fragmentary. Only three possess unbroken edges; each has shaped edges and is of the basin variety of metate. The other two fragments could represent basin, slab or trough varieties. None display pecked working surfaces.

Measurements in cm.			Area & Number	Material	Type	Comments
l	w	th				
89.0+	7.1+	3.5+	A-23-5	Basalt	Basin	Vesicular basalt
24.0+	24.0+	7.0	A-23-23	Sandstone	Basin	
30.0+	20.0+	5.1+	A-23-23	V. basalt	Basin	
20.0+	16.0+	3.1+	B-2-23	Sandstone	?	
11.0+	10.0+	4.0+	A-21-45	V. basalt	?	

MISCELLANEOUS GROUND STONE

A fragmental abrader of the type frequently called an arrow shaft smoother is from the subfloor test pit in Grid 26E and may not belong to the contents of the jacal structure. It is a well-shaped rectangular piece of pumice with a single longitudinal groove extending the incomplete length of the artifact. The groove is nearly semi-circular in cross-section with

a depth of a 0.3 cm. and a width of 0.7 cm.

This artifact inventory includes seven small pieces of graphite. Six have been utilized to produce abraded facets. One to four facets are found on each. The seventh specimen does not exhibit such utilization. None can be positively assigned to the jacal structure.

Measurements in cm.			Area & Number	Type	Comments
l	w	th			
6.9+	3.6	1.6	B-2-39	Abrader	Occupation uncertain
3.9	2.2	1.5	B-2-38	Graphite	Two facets; occupation uncertain
3.9	3.5	2.4	B-3-33	Graphite	One facet; P6M3 occupation
4.5	2.9	2.6	B-3-50	Graphite	One facet; P6M3 occupation
3.0	1.8	1.5	B-3-50	Graphite	One facet; P6M3 occupation
2.7	2.5	2.0	B-EPU-6	Graphite	One facet; surface collection
3.7	2.6	1.8	B-EPU-6	Graphite	Four facets; surface collection
2.7	2.0	1.8	B-EPU-6	Graphite	Four facets; surface collection
2.6	2.1	1.9	B-EPU-6	Graphite	Unworked; surface collection

Bone and Antler Artifacts

AWLS

Each of the 10 awls were manufactured from mammalian long bones. The distal end of a deer metacarpal serves as the handle of one; the other nine are simply splinters of the shafts of long bones. Only the pointed tips had been prepared by abrasion.

Measurements in cm.			Area & Number	Comments
l	w	th		
8.4	2.7	1.9	B-4-28	Unprepared metacarpal handle
11.6	1.5	1.3	B-3-52	Splinter; P6M3 occupation
3.2+	1.2+	0.8+	B-4-27	Splinter; burned
7.4	1.6	0.8	B-2-36	Splinter

Measurements in cm.			Area & Number	Comments
l	w	th		
3.1+	1.5+	0.8+	B-2-36	Splinter; burned
7.7	1.1	0.8	B-4-27	Splinter
6.7	1.5	0.8	B-1-52	Splinter; partially burned
3.7+	1.0+	0.7	B-4-27	Splinter
7.0	1.0	0.5	B-3-21	Splinter; P6M3 Level I
7.1+	1.0	0.7	B-1-34	Splinter

MISCELLANEOUS BONE AND ANTLER ARTIFACTS

The distal end of a deer metacarpal had been transversely cut to form a handle for an implement of unknown function. Two deer scapulae had their spines and glenoid cavity and accompanying neck removed by cutting. Whether this reflects the use of this bone as a tool or butchering is not known. A portion of a deer tibia shaft exhibits V-shaped grooves in each of its three edges. These cuts are near the proximal end. Wear polish is visible in the shallow concave surface proximal to the cuts and may indicate hafting. However, the precise nature or function of such a tool is not known because of the incomplete nature of this specimen.

Five pieces of deer antler are included in this collection. Three are fragments of tines and may have been utilized in producing chipped stone tools even though the "working end" is absent on each. A transversely cut segment of antler served as a handle for an unknown object. A longitudinal section of antler been abraded to produce one blunt and one pointed end. A nearly oval pendant was shaped from bone.

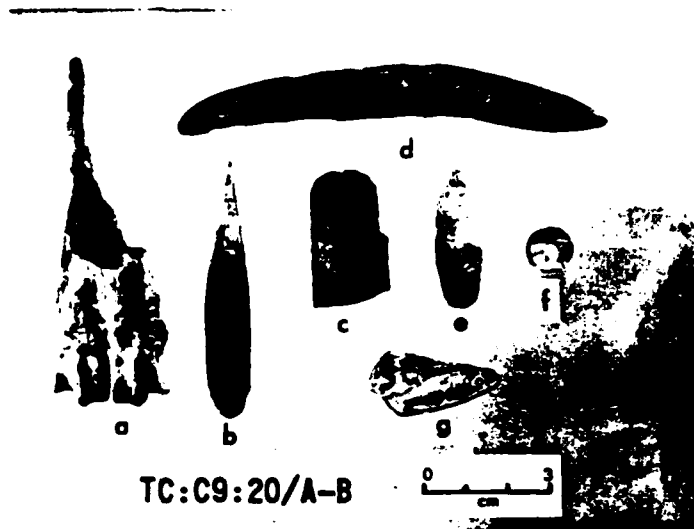


Fig. 14a. TC:C9:20/A-B Bone, Antler and Shell Artifacts

- a. Metacarpal awl, B-4-28.
- b. Splinter awl, B-1-52.
- c. Antler handle fragment, B-3-13.
- d. Two-pointed antler object, B-4-4.
- e. Bone pendant, A-21-46.
- f. Shell disc bead, B-EPU.
- g. Shell pendant, B-2-32.

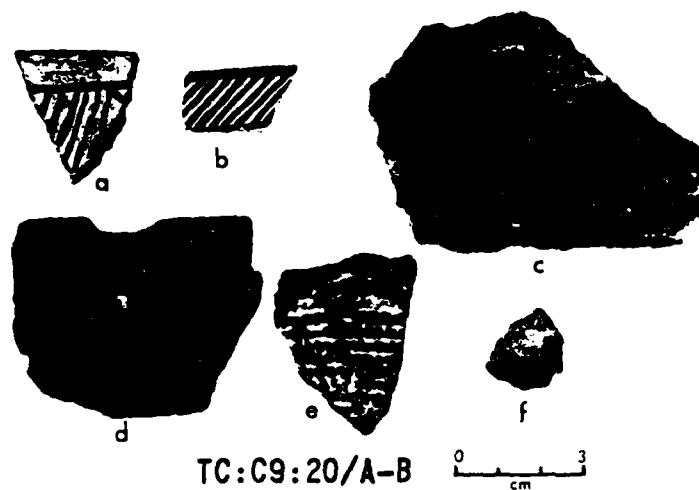


Fig. 14b. TC:C9:20/A-B Ceramics

- a. Taos B/W, A-23-15.
- b. Gallup B/W, A-21-40.
- c. Taos Incised (indigenous), B-2-36.
- d. Sopris Plain (rim), A-21-3.
- e. Basket-impressed, B-EPU-6.
- f. Polished indented blind-corrugated, B-2-19.

Measurements in cm.			Area & Number	Type	Comments
l	w	th			
5.8	3.1	2.0	A-21-27	Metacarpal handle	
8.0	1.8	1.7	A-21-27	Cut scapula	
8.3	2.1	1.7	B-?	Cut scapula	1963 find
10.9+	2.8+	2.1	B-2-38	Hafted tibia	
3.4+	1.2+	0.9+	A-21-20	Tine tool	
6.0+	2.2	1.6	B-?	Tine tool	1963 find
5.1+	1.7+	1.5+	B-5-2	Tine tool	
3.1+	2.1	1.9	B-3-13	Antler handle	P6M3 occupation
10.2	1.3	0.8	B-4-4	Two-pointed antler	
3.4	1.1	0.3	A-21-46	Bone pendant	

BONE BEADS

A total of 167 tubular bone beads and fragments are included here. Of these, 82 are small diameter (outside diameter less than 0.50 cm.), 82 are medium diameter (0.50-0.70 cm.) and three have diameters greater than 0.70 cm. (large diameter). For the small diameter beads the range of lengths is 0.8 to 3.2 cm. with an approximate median of 1.5 cm. The range of lengths for the medium diameter is 0.7 to 3.4 cm. with an approximate median of 2.0 cm. The three large diameter beads have lengths of 0.8, 1.9 and 2.5 cm. with respective outside diameters of 0.7, 0.9 and 1.3. The following are assigned to the occupation of the jacal structure: 54 small, 59 medium and two large. Twenty-three small and 11 medium are assigned to the P6M3 occupations. The surface collection totals are five small, 10 medium and one large. Two medium are from the subfloor test trench in the jacal structure.

BONE BEAD DISCARDS

The epiphyseal ends of rabbit bones that have been transversely cut from their shafts are probably the remnants from the manufacture of tubular

bone beads and are termed discards. Both the proximal and distal ends of humeri and femora are represented by this collection of six. Four are assigned to the jacal structure occupation, one to a P6M3 occupation and one is from the jacal subfloor test pit.

Shell Artifacts

None of the seven specimens included here have been positively identified, but all appear to be of the genus Glycymeris. Two are disc beads, one is a pendant, two display cut marks and two are very small fragments that display no alteration by man. One of the disc beads is nearly perfectly round. The other disc bead has five unequal sides, is of incomplete thickness and may represent a bead that fractured in the process of making it circular. The holes drilled in the centers of these beads are 0.36 and 0.37 cm. respectively. The pendant is tear-shaped and nearly complete. Its drilled hole is 0.09 cm. in diameter. The two pieces termed wastage each possess a single straight cut edge.

Measurements in cm.			Area & Number	Type	Comments
I (dia)	w	th			
(1.1)		0.3	B-EPU	Disc bead	Surface collection
1.0	0.9	0.3	B-4-27	Disc bead	Five-sided
3.2	1.6	0.2	B-2-32	Pendant	
2.3	1.2	0.2	B-3-50	Cut shell	P6M3 occupation
2.0	1.8	0.4	B-3-41	Cut shell	P6M3 occupation
0.4	0.3	0.1	B-1-24	Uncut	
0.6	0.4	0.1	B-1-24	Uncut	

Ceramics

Excavation within and immediately adjacent to the jacal structure in 1965, 1971 and 1972 produced 199 sherds. Of this total, seven are Taos B/W, three are Gallup B/W, five are white-ware of an undetermined type, 17 are locally manufactured Taos Incised, four are Sopris Plain, 156 are either Sopris Plain or locally manufactured Taos Incised, one is corrugated and six are Polished Indented Blind-corrugated. Only 41 (or 20.6%) can be positively assigned to the habitation of the jacal structure which straddles Areas A and B of site TC:C9:20.

TAOS BLACK-ON-WHITE

Mr. Stewart L. Peckham of the Research Laboratory, Museum of New Mexico, Santa Fe, has identified seven sherds as Taos B/W. Only two of these can be positively attributed to the occupation of this jacal house. Three sherds are from the surface collection and two stratigraphically overlay the house remnants.

GALLUP BLACK-ON-WHITE

Mr. Peckham has identified three sherds as Gallup B/W. One is positively attributed to the jacal house, one is from the surface collection and one was retrieved above the house fill.

UNIDENTIFIED WHITEWARE

These five small ceramic fragments cannot be precisely identified. Two can be positively attributed to the contents of the jacal structure.

The other three belong to one or more of the occupations of structures immediately to the north (P6M3).

TAOS INCISED (LOCALLY MANUFACTURED)

I have classed 17 sherds as locally manufactured Taos Incised. Two possess a punctate herringbone pattern; the other 15 exhibit parallel incised lines. None of these 17 can be positively ascribed to the contents of this jacal house although two may. These two came from the slump of an excavational wall that extended from the 1971 soil surface down to the house floor. Two are from the surface collection, two belong to P6M3 occupations and 11 were found to overlay the jacal house strata.

SOPRIS PLAIN

The existence of this locally manufactured ware in this collection is demonstrated by four rim sherds. These four extend from 3.5 cm. to 6.8 cm. below the lip and display no surface decoration. One of the four can be positively attributed to the contents of the jacal house. The other three overlaid the house debris.

SOPRIS PLAIN OR TAOS INCISED

The difficulty in distinguishing between Sopris Plain and Taos Incised produced in the Trinidad, Colorado region has been discussed elsewhere (Ireland and Wood 1972:191). None of the 156 sherds included here present any attributes which make positive classification possible. Six are rims (existing heights of 1.3 - 2.0 cm. below the lip), one is a single coil handle, one is the location of attachment for a coil handle, six are

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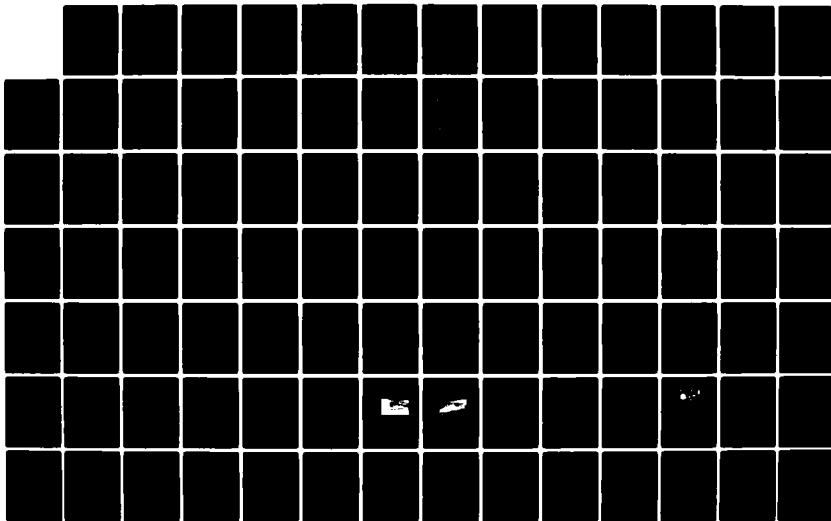
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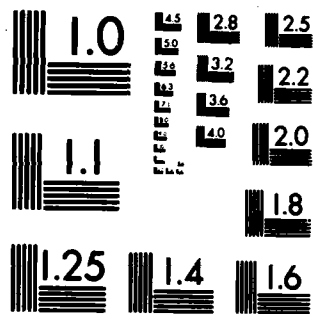
2/3

UNCLASSIFIED

F/G 8/7

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

basket-impressed basal sherds and 142 body sherds. The following are definitely associated with the jacal house occupation: two rims, the attachment of coil handle and 31 body sherds.

CORRUGATED

This single sherd exhibits simple horizontal corrugations that are low and flattened in profile and resemble a "washboard". It is identical to those reported for P6M3 (Ireland and Wood 1973:123). This single sherd is associated with the habitation of the Area A-3 jacal house.

POLISHED INDENTED BLIND-CORRUGATED

These six sherds are identical to those of other components of this site (Ireland and Wood 1973: 124-126, 175-176). None of these six body sherds can be positively ascribed to the habitation of the Area A-E jacal house although one did come from the previously mentioned slump of an excavational wall.

THE FAUNAL REMAINS AT TC:C9:20/A-B

Ruth L. Henritze
Caryl E. Wood
Stephen K. Ireland

INTRODUCTION

A minimum number of 11 genera of mammals and one species of bird were identified and are attributed to the occupation of this single-roomed jacal structure. These faunal remains included 226 items of bone (94% fragmental), three pieces of deer antler (each probably artifactual) and a single weasel tooth. This faunal collection represents material collected through excavation within and adjacent to this structure in 1965, 1971 and 1972.

The procedure we followed in our analysis of these faunal materials was essentially that outlined by Gilbert (1969) and is consistent with our previous reporting on Trinidad Reservoir osteological assemblages. Each item of bone was identified, where realistically possible, by name of element, side of body and the animal represented to the lowest possible taxon. The comparative osteological collection of the Laboratory of Archaeology, Trinidad State Junior College was utilized extensively in this identification. The references listed at the end of this report were used to supplement this collection. Accurate aging of each individual animal represented at TC:C9:20/A-B was not always feasible, hence the terms adult and subadult are utilized to distinguish between mature and immature specimens. However, in some instances we were able to provide narrower age estimates for subadult specimens.

MAMMALS AND BIRDS IDENTIFIED FROM TC:C9:20/A-B

ARTIODACTYLA

Cervidae

Deer (Odocoileus, probably hemionus and virginianus)

Antilocapridae

Pronghorn (Antilocapra americana)

Bovidae

Bison (Bison bison)

CANIVORA

Canidae

Canid (Canis, probably latrans)

Ursidae

Bear (Ursus, probably americanus)

Mustelidae

Weasel (Mustela frenata)

LAGOMORPHA

Leporidae

Cottontail Rabbit (Sylvilagus, probably audubonii)Jack Rabbit (Lepus, probably californicus)

RODENTIA

Sciuridae

Squirrel (Spermophilus, probably variegatus)

Geomyidae

Gopher (Cratogeomys castanops)

Cricetidae

Wood Rat (Neotoma micropus)

GALLIFORMES

Turkey (Meleagris gallopavo)

Table 9

MINIMUM NUMBER OF ANIMALS: TC:C9:20/A-B

Animal	Adult	Subadult	Total
Deer	7	2	9
Pronghorn	1		1
Bison	1		1
Canid	1		1
Bear	1		1
Weasel	1		1
Cottontail Rabbit	3	2	5
Jack Rabbit	1		1
Squirrel	1	1	2
Gopher	2	1	3
Wood Rat	1	1	2
Turkey		1	1

Table 10

ANIMALS AND ELEMENTS REPRESENTED AT TC:C9:20/A-B

ANIMALS ELEMENTS	Deer	Pyhn	Deer or Pyhn	Bison	Candid	Bear	Wsl	Ctn- tail	J. xrb	Sq1	Gphr	W. rat	Skv
Antler frag.	3												
Mandible*													
Cranial frag.	1												
Mandible	7L 2R							3L		1R	2L		
Vertebra	1												
Rib	3 3L									1L			
Scapula	1R 1												1
Humerus	1R 3							3L 1R	1R		1R	1R	
Ulna	1							4L 3R		1L			
Radius					1L			1L					
Metacarpal	2 1L 1R 6					2R		1L					
Pelvis								2L 2R			1L 1R	1L	
Femur	1L 2R							2L 4R			1L	1 2L	
Tibia	2L 6R 3	1R			1			3L		1	1L	1L	1
Fibula*													
Metatarsal	2L 3R 4							1L					
Carpal	1 2L 7R							1L 1R					
Tarsal					1			1L					
Prox. phalanx	1R 1												
Med. phalanx	2							2					
Dist. phalanx*													
Calcaneus*													
Astragulus*													
Long bone frag.	78			14									
Teeth								1C					

KEY: L = Left; R = Right; C = Cusp; Numbers without accompanying letters indicate side of animal not
 *Element not represented by any species

DISCUSSION

Family Cervidae, Odocoileus

A minimum of seven adult and two subadult deer are represented by 148 items of bone. Of this total, 70 were positively identified as to element represented and 78 are splintered fragments of long bones which could not be identified, but are probably of the same genus. Two species of deer, Mule (hemionus) and White-tailed (virginianus), may be included in this collection. The minimum count for adults is based upon seven left mandibles. Although only two subadult deer bones were tabulated, they are from two different individuals of different ages. A right mandible is attributed to a subadult of approximately one week of age while a carpal with ossification nearly complete is from an older yet immature deer. Artifacts of deer bone are 10 awls from long bones, three antler tine tools and a scapula with spine removed which may be a tool.

Family Antilocapridae, Antilocapra

The fragment of a fibula indicates a minimum of one adult pronghorn (americana). We feel that 14 fragments of long bones may be of this species also, but have been tabulated as deer or pronghorn (Table 10) as identification was not positive.

Family Bovidae, Bison

One adult bison is represented by only two items: a tibia and an astragalus fragment.

Family Canidae, Canis

The diaphysis of a radius represents this genus and probably the species latrans (coyote) although this identification is tenuous at best.

Family Ursidae, Ursus

An adult bear, probably Black (americanus), is denoted by three elements: one metacarpal and a first and a fifth phalanx.

Family Mustelidae, Mustela

An adult Long-tailed Weasel (frenata) is indicated by the presence of a cuspid tooth of that species.

Family Leporidae, Sylvilagus

The genus is represented by 38 elements. A minimum number of three adult and two subadult is based upon three left mandibles and two right femora, respectively. The species is probably audubonii, the Desert Cottontail. Included in the tabulations were four proximal and distal ends of femora and humeri which had been cut transversely, presumably in the manufacture of beads. The 108 bone beads attributed to the occupation of this structure were not included in the tabulation of elements, but are believed to have been manufactured from the long bones of the cottontail.

Family Leporidae, Lepus

A single adult Jack Rabbit (probably Black-tailed: californicus) is indicated by a distal fragment of a humerus.

Family Sciuridae, Spermophilus

Five bone items represent one adult and one subadult squirrel, probably the Rock Squirrel (variegatus). Those items include a mandible, a scapula fragment and a femur fragment for the former and two ulna fragments for the latter.

Family Geomyidae, Cratogeomys

Two adult and one subadult Yellow-faced Pocket Gopher (castanops) are indicated by eight items of bone. The adult items are two left mandibles, one left tibia, one right humerus and a right and left pelvis. Two fragments of femora represent the subadult.

Family Cricetidae, Neotoma

The Southern Plains Wood Rat (micropus) is denoted by nine items. One adult is represented by two pelvic and two metacarpal fragments while two tibia fragments, a femur and a humerus, are subadult.

Order Galliformes, Meleagris

One scapula fragment has been identified as a subadult Merriam's Turkey (gallopavo).

Summary and Conclusions

The preferred large game animal appears to have been deer. Only a small percentage of the remains of the axial skeleton of deer were recovered when compared to the bones of the appendage. This may indicate that some or many of the deer were killed some distance from this habitation structure and only selective "cuts" of meat brought home. Since several scapula fragments, with the spine purposely removed, and mandibular fragments were recovered, it seems likely that some butchering was done at the site. Many of the long bones recovered were smashed or split, presumably for marrow. Some of these splinters were used to manufacture awls. Antler tines were also returned and probably used as tools. Relatively small quantities of antler was recovered, perhaps indicating only partial return of antler to the site.

Cottontail seems to have been the most highly exploited small mammal. They were presumably utilized for the hide and meat and their bones for beads. Jack Rabbit was also present and was probably utilized for the same purposes.

Pronghorn and bison, both Plains species, are represented but to judge from the calculated minimum numbers, cannot be considered preferred game animals.

The recovered elements representing bear may indicate that only the hide, with accompanying bones, was returned and that this animal was not considered a food resource.

The evidence for the genus Canis is minimal and difficult to evaluate. Another carnivore represented, a weasel, is considered to be intrusive as are the other rodents (squirrel, rat and gopher.)

The only bird bone item identified is from a subadult wild turkey. Other highly fragmental avian bones are present in this collection but could not be identified below the taxonomic level of Class.

The turkey is estimated to be between two and four months of age. This would signify an August to October kill. The one week old deer would have been killed in late Spring or early Summer. Thus, this structure may have been only seasonally occupied although a year-round occupation cannot be ruled out.

Summary and Conclusions: TC:C9:20/A-B

The charred remnants of a house structure were encountered in the northern portion of Area A and the contiguous part of Area B. The house was constructed of jacal (wattle and daub). It was probably dome-shaped. The saucer-shaped earth floor demonstrated two fire pits and a small sub-floor pit. There were two internal support posts and the likelihood of additional ones exists. There were about 300 square feet of floor space in the single room of this house.

There was direct evidence to indicate an economy based upon hunting, gathering and horticulture. The relative importance of each of these economic activities is not known. However, the high numbers of animal species represented and individuals present may indicate a greater dependence upon hunting relative to other reported Sopris Phase structures. Regardless, deer was the preferred large game animal and rabbit the preferred small game. Two Plains species, pronghorn and Bison, were represented. Bear may not have been considered a food resource as the only bear bones recovered were those which probably would have been returned with the hide. Both wild plants and corn were utilized for food by the occupants of this jacal structure.

The types of artifacts attributed to the habitation of this jacal house are consistent with other Sopris Phase assemblages. These recovered artifacts are also consistent with other evidence for economic activities except for the absence of implements identified as horticultural in function (an absence which has occurred for all other reported Sopris Phase sites).

Ceramic cross-dating can be utilized to place the habitation of this jacal building in the Sopris Phase, A.D. 1150 to 1250 or 1300 (Ireland 1971:50). The indigenous manufacture of Taos B/W is considered by Breternitz (1966:96) to date between A.D. 1150-1250. Breternitz (1966:76) dates Gallup B/W at A.D. 1000-1125 as an indigenous type, possibly lasting until ca. A.D. 1200 as a trade item. The facts known about the dates of manufacture of the other extant ceramic types is compatible with the above data. Thus, the approximate span of A.D. 1150-1200 is indicated for the habitation of this house.

The 1971 and 1972 explorations did not stratigraphically determine the precise temporal sequence of the five Sopris Phase habitation structures in Areas A and B. The other TC:C9:20 manifestations of this Phase have been previously reported (Ireland and Wood 1973) and include five structures (in addition to the Area A-B jacal house) and possibly two additional jacal or brush structures. Current knowledge does not permit conclusive statements regarding the exact sequence of Sopris Phase habitation at TC:C9:20.

Caryl E. Wood and Stephen K. Ireland

Introduction

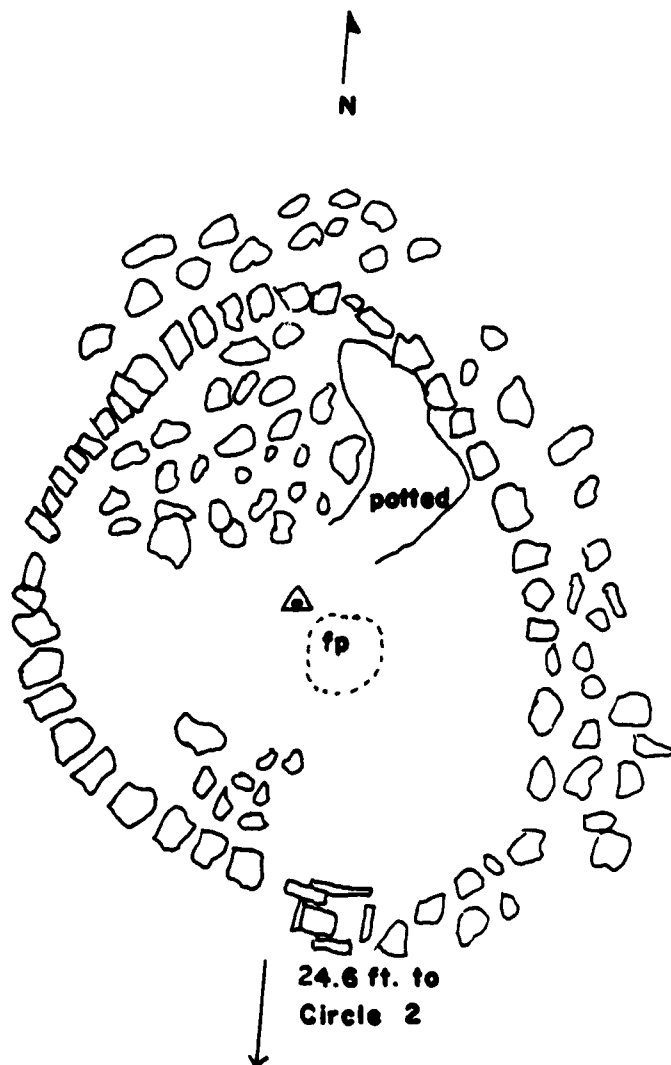
TC:C9:2, a site consisting of two tipi rings, was excavated in July 1957 by Dr. Herbert Dick. The site is located about five miles west of Trinidad in the NE 1/4, SE 1/4, SW 1/4 of Section 28, Township 33S, Range 64W. The two circles are situated on a small mesa, about 260 feet above and north of the Purgatoire River (Fig. 15). The following information was recorded in the 1957 field notebook of Dr. Dick, who generously made it available for our use. This notebook was our sole source of information concerning excavation and description of these two stone circles. Figures 16 and 17 are reproductions of the sketch maps in the notebook. All measurements given, unless otherwise stated, are taken from the notebook and are precise.

Circle 1

Circle 1 was composed of approximately 46 stones which made up the actual circle plus numerous stones inside and outside of this circle which were assumed to be stones displaced from this circle. These stones ranged from 1.3 - 1.7 feet in length and 0.6 - 0.8 feet wide. The long axis of each stone was placed radially along the horizontal plane. The inside diameters of this circle were 16.0 feet N-S and 16.8 feet E-W. The N-S outside diameter was 25.5 feet while the E-W was 20.3 feet. Incorporated within the south side of the circle were rectangular stones placed in such a position that they formed a rectangular area about 1.6 feet x 1.8 feet (Fig. 16). The depth is unknown. Near the center of the circle was a

TC:C9:2/1

SKETCH MAP



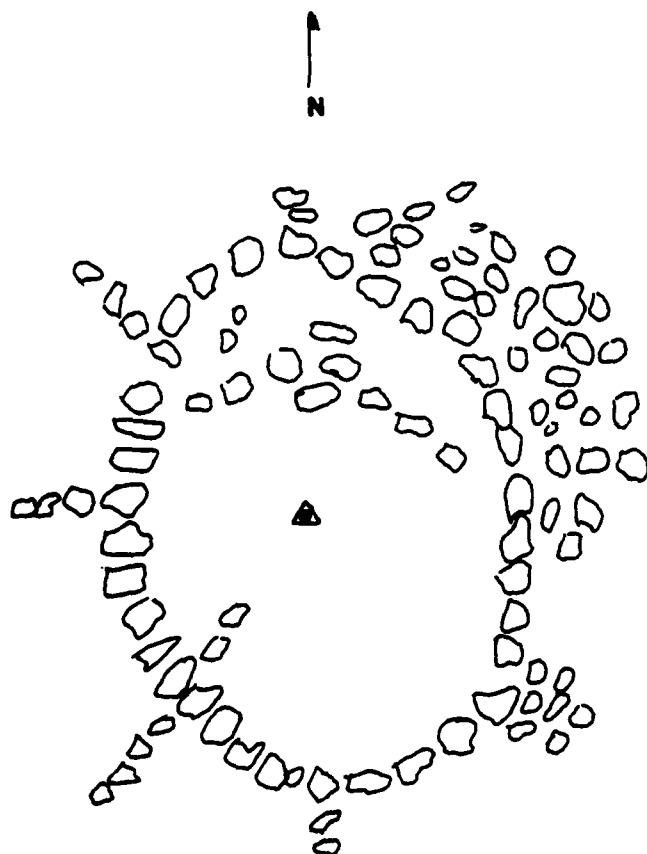
LEGEND

- △ datum
- fp fire pit



TC:C9:2/2

SKETCH MAP



LEGEND

▲ datum



fire pit two feet in diameter. The depth is not known; however, it was composed of burned soil and no incorporated rocks. The fill of the tipi ring varied from 0.6 - 1.5 feet in depth; but, the composition is not known.

Circle 2

Circle 2 was located 270 feet west of the east edge of the mesa. Circle 2 was south of Circle 1; the two were separated by 24.6 feet. This southern circle was composed of 36 stones with short rows of additional rocks placed radially both inside and outside of this circle (Fig. 17). The long axis of the 36 stones in the circle proper were oriented radially also. Each of the short rows was about three feet long and contained three or four rocks. Seven and possibly eight such rows were placed at nearly equal intervals around the outside of the circle. In addition, two and possibly three of these rows converged toward the center within the circle. The dimensions for the stones were the same as Circle 1. The outside diameters of Circle 2 were measured to be 20.5 feet N-S and 27.1 feet E-W with inside diameters of 20.5 feet N-S and 17.0 feet E-W. No fire pit is mentioned. The depth of the fill in the circle was the same as Circle 1 with no mention of composition.

Other Recorded Data

Dick noted the possibility of a third circle "72 feet east of the center between the two circles." In addition, numerous fire pits were located around the edge of the mesa.

Artifact Analysis and Classification

Chipped Stone Artifacts

TRIANGULAR CORNER-NOTCHED PROJECTILE POINT

The only projectile point recovered from TC:C9:2 was placed in this category. It possessed a roughly triangular outline although the tip was missing. The base was slightly convex.

TC - Triangular corner-notched (total: 1)

Type	Measurements in cm.			Provenience	Material	Comments
	L.	W.	Th.			
TC	1.2+	1.1	0.3	2	Argillite	Tip missing

+ Indicates specimen incomplete in that dimension.

KNIVES

The ten knives recovered were divided according to outline and flaking patterns. Seven knives are subrectangular in outline. Five of these seven are bifacially flaked and one is unifacially flaked. Two knives were termed amorphous because they have no discernable special outline. One is bifacial while the other is unifacially flaked. All possess an original flake scar with pressure flakes removed from the desired working edge. Few flakes were removed from the body of the knives.

S - Subrectangular (total: 7)

D - Discoidal (total: 1)

A - Amorphous (total: 2)

Type	Measurements in cm.			Provenience	Material
	L.	W.	Th.		
S	3.8	2.9	1.0	1	Argillite
S	4.1	2.1	0.6	1	Argillite
S	3.4	1.8	0.8	2	Argillite
S	4.0	4.1	1.1	EPU*	Argillite
S	7.5	3.5	1.3	2	Argillite
S	3.4	2.6	0.5	EPU	Argillite
S	7.5	4.8	1.3	1	Argillite
D	6.6	5.5	1.6	1	Argillite
A	7.9	5.8	1.3	EPU	Argillite
A	5.8	5.2	1.1	1	Argillite

* EPU = Exact Provenience Unknown

SCRAPERS

The scrapers were subdivided according to the position of their worked edges: end and side scrapers. Five scrapers were placed in the former category and again subdivided by the shape of the end. Four possess rounded ends while one is square-ended. All of the end scrapers are keeled. In addition, one scraper fell into the side scraper category.

RE - Round-end (total: 4)

SE - Square-end (total: 1)

S - Side (total: 1)

Type	Measurements in cm.			Provenience	Material
	L.	W.	Th.		
RE	8.5	5.4	2.1	EPU	Argillite
RE	5.9	3.8	2.3	2	Argillite
RE	4.5	3.6	1.5	EPU	Argillite
RE	6.5	4.4	1.9	1	Argillite
SE	6.2	4.4	1.6	2	Argillite
S	5.6	4.1	1.6	2	Argillite

FLAKES

Seven utilized flakes were recovered. Each has a few small pressure flakes removed from the edges. Each of the seven is composed of argillite. In addition, 10 flakes which demonstrate no signs of utilization were recovered from TC:C9:2. Nine are of argillite and one of jasper.

GROUND STONE ARTIFACTS

MANOS AND METATES

Although Dick noted the presence of manos, the location of these specimens is presently unknown. One fragmented basin metate was recovered from Circle 2. Its dimensions are: 22.6+ cm long, 21.0+ cm wide, and 9.0 cm thick. It was manufactured from sandstone and the deep basin-like working surface had been pecked.

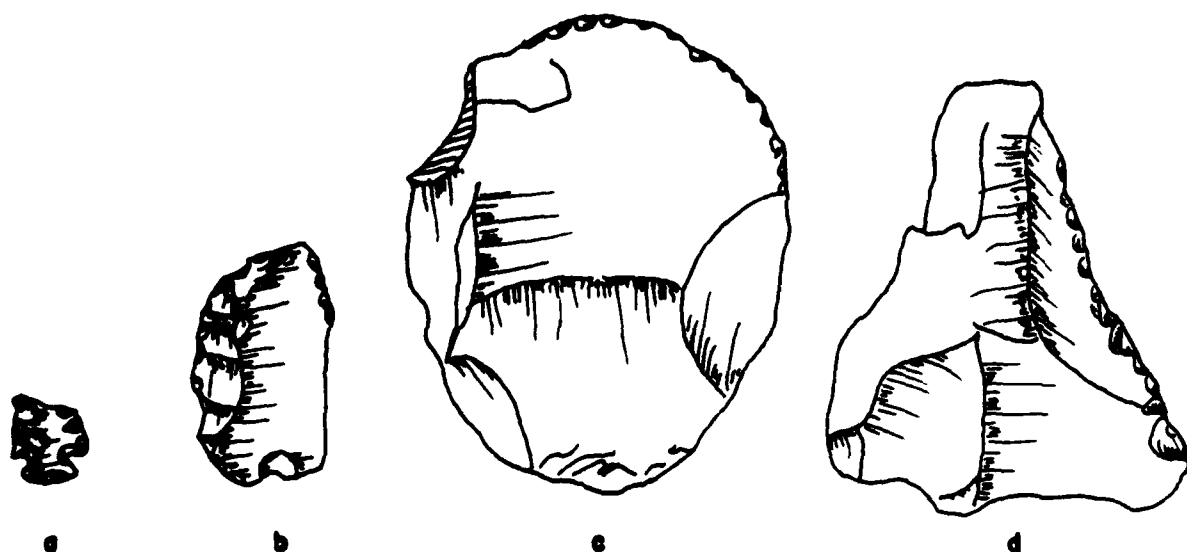
GRAPHITE

Three pieces of worked graphite were recovered from Circle 2. Two possess three worked facets while one possesses five facets.

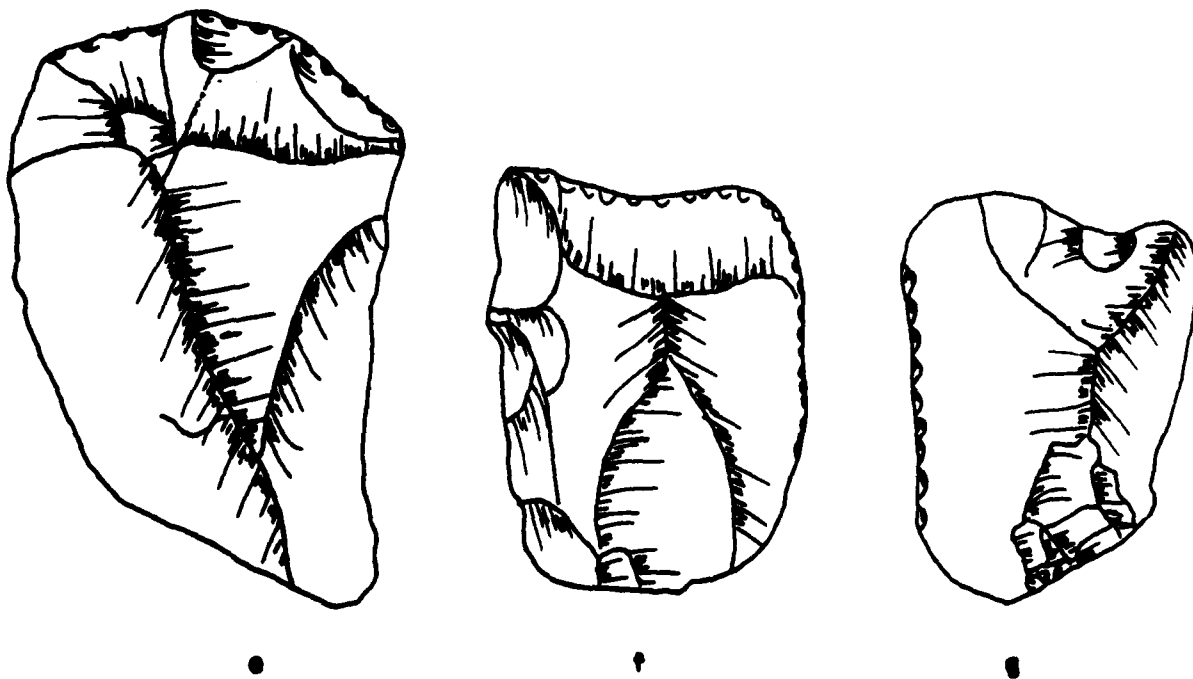
CERAMICS

Four sherds are on deposit at the Laboratory of Archaeology, Trinidad State Junior College in a box labeled "TC:C9:2." There is, however, an element of doubt regarding the provenience of at least two of these sherds.

Two sherds, both micaceous, are without labeling. One is a rim and the other from the body of the vessel, probably above the base. The rim compares quite favorably to Trinidad area sherds identified by Dr. James Gunnerson as Ocate Micaceous (Gunnerson



- a. Projectile point, Circle 2
 - b. Subrectangular knife, Circle 2
 - c. Discoidal knife, Circle 1
 - d. Amorphous knife, Circle 1
 - e. Round-end scraper, Circle 2
 - f. Square-end scraper, Circle 2
 - g. Side scraper, Circle 2
- [all are actual size]



1969:26-67). It possesses a rounded lip, a characteristic of that type, but the rim is nearly vertical and a bit thick (4.5 mm). The body sherd is of identical paste, surface treatment and thickness. Based upon our comparison of ceramics identified by Dr. Gunnerson as either Ocate Micaceous or Cimarron Micaceous (Gunnerson 1969: 33-34), we will call these two sherds Ocate Micaceous even though the rim form and thickness is closer to Cimarron Micaceous. The fact that these two are not labeled casts some doubt upon their provenience. The original field log does not mention artifacts other than the metate fragment, so we can not verify their origin in this manner.

The other two sherds are cordmarked and probably do not come from the mesa top upon which these tipi rings are situated. We located them in a sack which was within the above mentioned box. The sack was labeled: "TC:C9:2", Survey-Purgatorie West, on s.s. (sandstone shelf) 60 feet above flood plain." These two sherds are clearly not from the original excavation of TC:C9:2 as the style of labeling and the terminology is that of Galen Baker. The location of site TC:C9:2 is clearly not that described on the sack containing these two ceramic fragments - the described location may be that of TC:C9:4 (Ireland 1970). Regardless, these two compare excellently with ceramics identified by Dr. Robert Bell as Stamper cordmarked.

CONCLUSIONS

That the "circles" described are architectural remains and represent tipi rings seem obvious. Conclusive statements regarding

the cultural and temporal affiliations of these structural remnants can not be made, however, because of the questionable provenience of the described ceramics. If the micaceous sherds do, in fact, belong to the contents of these tipi rings and if they are indeed Ocate Micaceous, then the structures can be affiliated with the Apache, ca. 1550?-1750? (Gunnerson 1969:26).

The specimens collected by Dick in 1957 do not present evidence to either confirm or either confirm or refute this. To judge from the relatively large size of the rings, it would appear that they date within the post-horse era. That these tipi rings are of Plains Indian origin is without question. If the micaceous sherds described above are not associated, then alternatives for the origin of these structures are numerous. Taylor (1964:1-3) cites evidence to indicate that, in addition to the Apache (Jicarilla and Penxayes), the Muache and Tabeguache Utes were within the upper Purgatoire Valley in the area of TC:C9:2 during the 18th and 19th centuries. In that source, Taylor also points out that the Comanche, Cheyennes, Arapahos, Kiowas were also in southeastern Colorado.

HUMAN SKELETAL MATERIAL FROM THE TRINIDAD RESERVOIR AREA

Caryl E. Wood and Stephen K. Ireland

Introduction

The following is an osteometric description of human skeletal remains retrieved from the area of the Trinidad Reservoir. These materials have been recovered over the last two decades from a stretch of the upper Purgatoire Valley measuring approximately five miles in length.

The authors were present for the excavation of only three of the 30 individuals represented by this material. Few details concerning the excavation of the other 27 are available to us. We are unable to provide precise site location data or excavational details for the three specimens which are identified as "Blasi Place," "1954-6" and "Sheriff's dig." All available pertinent information concerning site location, method of interment, grave goods, etc., is either presented here or the reader is referred elsewhere.

The majority of the individuals represented by this collection (21 or 70%) can confidently be placed in the Sopris Phase of the Upper Purgatoire Complex. Three (or 10%) probably belong to that Phase, but lack either diagnostic associated artifacts or exact provenience data. We are unable to give cultural or temporal affiliations for five (16.7%) of these specimens because of a near total absence of provenience data. The remaining specimen, Burial 2 from Area D of site TC:C9:20, is briefly mentioned by Galen Baker in the excavation notes but its present location is unknown to us.

Method

Many measurements could not be made or were estimated because of the incomplete nature or poor state of preservation of many of the specimens. All measurements or indices are based upon the techniques of Hrdlicka (1947). Complete cranial measurements were taken on only seven individuals.

Estimation of age was possible on 28 individuals. Age was assessed by various methods depending upon the state of preservation and skeletal elements present. The rate of attrition of molars (Hrdlicka 1947) and pubic symphysis changes (McKern and Stewart 1957) were used as age indicators for adults. Epiphyseal union (Gray 1963) and dental eruption (Brescia 1961) were utilized in aging immature individuals. Cranial suture closure was employed only for very old and very young individuals or when no other age-indicating methods could be employed.

Fourteen individuals possess the diagnostic characteristics necessary for sex determination. Those methods utilized were: cranial characteristics such as the size of the brow ridges and mastoid processes, sharpness of orbital margins, bilaterality of the mental protuberance, and the sex determination formula developed by Giles and Elliot (1962); sciatic notch angle and morphology of the pelvis; and the relative robusticity of the largest long bone. It should be noted that the latter was employed only when no other diagnostic characteristics were present. Sexual dimorphism does not seem to have been strongly pronounced in this collection. Most individuals were gracile, thus the robusticity of the long bones and the size of the femoral head were recorded but found to be of little use in the determination of sex. Again, it should be noted that the extant skeletal elements required various methods to be employed for each individual,

and, in many cases, sex was determined by arbitrary judgments after becoming familiar with the collection of elements representing a single individual and comparing them to those which were reliably sexed by using all applicable methods.

Stature was calculated by using the method and tables for stature among Mesoamericans by Genoves (1967). The calculations were made from femoral measurements where possible; otherwise from measurements taken on the largest long bone available.

A brief description of the skeletal specimens follows. Greater osteological data can be found in Table 11.

Site TC:C9:4

Site report: Ireland 1970, 1971.

Taxonomic placement: Sopris Phase.

Number of individuals represented: 2.

Comments: These two individuals are represented only by a fragment of the left pelvis of a newborn infant and by a proximal tarsal phalanx of an adult. We are unable to provide exact provenience data for these specimens.

Site TC:C9:9

Site report: Ireland 1970, 1971.

Taxonomic placement: Sopris Phase.

Number of individuals represented: Two and perhaps five.

Number 1: Sex, male; age, 30-34; stature, 151.50 cm. (estimated). This specimen exhibits a slight malformation of the first sacral vertebra. This individual was interred in a bell-shaped cooking pit (see Ireland 1970:50, 67).

Number 2: Sex, unknown; age, 2-3 years. The skull displays an Inca bone. This individual was buried in a shallow subfloor pit with 299 shell beads (Ireland 1970:69).

Comments: This site contained extremely scattered adult, small child and infant bones.

Site TC:C9:9B (or 10)

Site report: Ireland 1973.

Taxonomic placement: Sopris Phase.

Number of individuals represented: Two.

Number 1: Sex, unknown; age, 20+; stature, 151.50cm (estimated).
Observations were limited as this skeleton consists
of only a few bones.

Number 2. Sex, undnown; age, infant. This individual represented
only by a frontal bone which was located in the same
storage box as Number 1.

Comments: We are unable to provide the circumstance of retrieval
for these human skeletal specimens. It would appear,
however, that no discrete burial was encountered, but
rather scattered remains which may represent disturbed
burials.

Site TC:C9:19

Site report: None.

Taxonomic placement: Sopris Phase.

Number of individuals represented: One.

Number 1: There is no diagnostic material in this incomplete
skeleton to determine sex or stature. It does
appear to be an adult. We are unable to provide
the circumstances of retrieval of these skeletal
elements.

Site TC:C9:20

Site report: Ireland and Wood (1973) report all known details
of the six (possibly eight) habitation structures
in Areas A, B, and C of this site; Areas D and
E apparently contained only skeletal material
and cultural debris.

Taxonomic placement: Sopris Phase.

Number of individuals represented: 12.

Area A, Number 1: Sex, male; age, 30-35; stature, 165.50 cm.
This individual was interred in the rubble
of a burned and collapsed stone masonry
structure and may represent an occupant
of one of this site's other structures.

Area A, Number 2: Sex, male; age, 14-15; stature, 148.00cm.

A moderate form of sacral spina bifida is suspected. This individual was buried in a shallow subfloor pit.

Area B, Number 1: Sex, male; age, 47+; stature, 157.00cm (estimated). A thickening of the diploe of 1.25 cm in the right parietal may indicate the condition of hyperostosis. This individual was apparently interred beneath the floor of a mud-walled room.

Area B, Number 2: Sex, unknown; age, two months-one year. This was a subfloor burial in a mud-walled room.

Area B, Number 3: Sex, female; age, 22-25; stature, 151.00cm (estimated). This individual was interred in the fill of a room, at floor level, with large boulders covering the body.

Area B, Number 4: Sex, male; age, 25-29; stature, 156.50 cm (estimated). Slight lipping of the last lumbar vertebra indicates osteoarthritis. Antemortem loss of 12 teeth resulted in resorption of mandibular and maxillary bone. This individual was apparently buried in the fill of a mud-walled room.

Area B, Number 5: Sex, male; age, 35-40; stature, 160.00 cm. Pathologies present include osteoarthritis of the cervical vertebra and a healed fracture of the second left metatarsal. Buried within or under a room of a mud-walled structure. Grave goods include a necklace of 38 bone, 59 stone and 12 shell beads. The mandible placed in the storage box with the rest of the complete skeleton does not appear to "belong" to this specimen.

Area C, Number 1: Sex, unknown; age, 12 years; stature, 144.00 cm. This individual was interred in a subfloor bell-shaped pit. Burial goods include: 16 stone beads, one bone bead and one bone awl.

Area D, Number 1: Sex, unknown; age, birth-one year. This specimen is highly fragmentary. Details of excavation/burial are unknown.

Area D, Number 2: The present location of this specimen is

unknown as are the other details.

Area D, Number 3: Sex, male; age, 20-22; stature, 149.00 cm. This fragmentary specimen was "excavated" by construction equipment.

Area E, Number 1: Sex, female; age, 16-18; stature, 154.00 cm (estimated). The details concerning this incomplete specimen are unknown.

Site TC;C9:22

Site report: Presently being prepared by Ireland.

Site location: On same terrace and east of TC;C9:8 through TC;C9:12.

Taxonomic placement: Uncertain due to lack of architecture and diagnostic artifacts. Intensive habitation of terrace by Sopris Phase peoples may account for this burial although Cimarron Micaceous sherds from the surface collection elsewhere on the terrace may indicate an Apache origin, ca. A.D. 1750?-1900?

Number of individuals represented: One.

Number 1: Sex, female; age, 20-24; stature, 149.50 cm. The left humerus is extremely bowed; however it cannot be determined if this is pathological or post-mortem deformation. This is an incomplete skeleton and few observations could be made.

Site TC;C9:24

Site report: Ireland 1973.

Taxonomic placement: Sopris Phase

Number of individuals represented: Three

Number 1: Sex, unknown; age, five to six years. Due to the fragmentary and incomplete nature, few observations were conducted.

Number 2: Sex, unknown; age, one year. Specimen fragmentary and incomplete.

Number 3: Sex, unknown; age, 25+. Few diagnostic bones were recovered and observations were, therefore, limited.

Comments: The recovered remains of these three individuals were

scattered throughout the two rooms of a stone structure and do not appear to represent burials, either primary or secondary.

Site TC:C9:102

Site report: None.

Taxonomic placement: Uncertain; ceramic evidence of Sopris Phase and Apache.

Number of individuals represented: One.

Number 1: Sex, unknown; age, five-six years. At this writing, we are unable to provide additional details concerning this specimen.

Site TC:C9:145

Site report: None,

Taxonomic placement: Unknown.

Number of individuals represented: One.

Number 1: Sex, unknown; age, eight-ten years. This individual is represented only by fragments of the parietals. We are currently unable to provide additional data concerning this specimen.

Site TC:C9:302

Site report: Ireland 1973.

Taxonomic placement: Probably Sopris Phase.

Number of individuals represented: Two.

Number 1: Sex, female; age 50+; stature, 152.00 cm. Only incomplete remains were recovered as earth-moving machinery unearthed and removed part. Interment was in a cooking pit, possibly bell-shaped and perhaps subfloor.

Number 2: Sex, female; age, 14-17; stature, 144.50 cm. This burial was from a cooking pit which was probably bell-shaped and possibly subfloor. Grave goods included 144 bone beads, 20 shell beads and a shell pendent.

"Blasi Place"

Site report: None.
Taxonomic placement: Uncertain.
Number of individuals represented: One.

Number 1: Sex, male; age, 15-16; stature, 155.50 c,. We are unable to provide any non-osteometric data for this specimen including precise location of site (only to nearest section: T.33S, R. 62W, Sec. 23).

"1954-6"

Site report: None.
Taxonomic placement: Uncertain.
Number of individuals represented: One (possibly four).

Number 1; Sex, male; age, 27-30; stature, 150.00 cm. A large abscess is present in a molar. We are unable to provide any non-osteometric data for this specimen including precise site location.

Comments: Two to three individuals partial remains were also placed in the storage box containing this specimen; the provenience of these surplus bones is unknown. Site is located "in Reilly Canyon near Cokedale (Colo.)."

"Sheriff's Dig"

Site report: None.
Taxonomic placement: Uncertain.
Number of individuals represented: One.

Number 1: Sex, female; age, 30; stature, 155.00 cm. The maxillary lateral incisors were congenitally absent. This specimen is nearly complete. Two mis-matched ribs were included in the storage box and are possibly human. Grave goods included six pendants manufactured from mammalian ribs, possibly deer and bison.

Pathology

Analysis of this collection of osteological material revealed only four pathological conditions. These four were in specimens from various occupations of site TC:C9:20.

Area A, Burial 2, a male of 14-15 years of age, displays a moderate form of spina bifida in the sacral vertebrae. Incomplete closure of the laminae and spinous processes of the third, fourth and fifth sacral vertebrae, which had fused, was present. The first and second sacral vertebrae had not yet united, but they were too fragmentary to determine if incomplete closure had extended through their processes as well. It is not known if this individual died from this affliction.

Burial Number 1, Area B, TC:C9:20, exhibits a thickening of the cranial diploe which may indicate the condition of hyperostosis. At its thickest point, the wall of the skull of the 47+ male measured 1.25 cm.

Burial Number 4, Area B, TC:C9:20, demonstrates slight lipping of the last lumbar vertebra indicating a very mild form of osteoarthritis in this male, 25-29 years of age.

Burial Number 5, Area B, TC:C9:20, possesses several cervical vertebrae with a slight lipping. The vertebrae of this 35-40 year old male were too fragmentary to determine how many and which ones demonstrated osteoarthritis. The second left metatarsal of this individual exhibits a healed fracture. There was no displacement in the alignment of the bone as the ends had not separated when fractured.

Other conditions observed on skeletal specimens may or may not represent pathological conditions. Number 1, TC:C9:9, displays a slight malformation of the first sacral vertebra. However, it cannot be determined if this "lumbar-looking" sacral vertebra of this male aged 30-34 is inborn or the result of a pathological affliction. The 20-24 year old female from TC:C9:22, displays a "bowing" of the humerus. This, too,

cannot be confidently labeled pathological for it was the only complete longbone for this specimen and could be the result of post-mortem deformation.

Carious lesions in this sample were small and few in numbers. The most advanced is shown by "1954-6," a 27-30 year old male. A lesion of the left mandibular first molar extended the entire length of that tooth and probably caused a large abscess that penetrated the mandible from the socket of that tooth through to the buccal surface.

Anomalies

Although epactal bones along the lambdoidal suture were common, only one of the 15 with the necessary diagnostic material exhibits a true Inca bone. The female from the "Sherrif's Dig" demonstrates the congenital absence of the maxillary lateral incisors.

Mortality Rate

It is difficult to accurately portray the Mortality Rate with such a small sample. The following data was calculated using statistics for all 30 individuals with notation made for those specimens which probably were not part of the Sopris Phase population. Four Sopris Phase individuals are not included in these calculations because of age estimation being only very general and an additional Sopris Phase specimen (TC:C9:20/D-2) was eliminated since its present location is unknown to us.

Age at Death (in years)	Frequency	Per cent
Birth-1	5	20.0
2-6	3	12.0 (a) *
7-12	2	8.0 (b)
13-19	4	16.0 (c)
20-24	3	12.0 (d)
25-29	2	8.0 (e)
30-34	3	12.0 (f)
35-39	1	4.0
40+	2	8.0

* With the presently available data we cannot confidently place the following specimens in the Sopris Phase: (a) TC:C9:102, (b) TC:C9:145, (c) "Blasi Place," (d) TC:C9:22, (e) "1954-6" and (f) "Sheriff's Dig."

Burial Practices

Analysis of burial data is limited because of insufficient information concerning the method and location of interment. We are unable to give any burial practice information for seven of the specimens.

At least two of the individuals (TC:C9:9-1 and TC:C9:20/C-1) were interred in sizeable subfloor bell-shaped pits. Burials Number 1 and Number 2 at TC:C9:302 probably were also (it is assumed that commercial gravel operations removed the overlying structure).

Four additional specimens were buried in small shallow subfloor pits (not bell-shaped). These are: TC:C9:20/B-2, TC:C9:9-2, TC:C9:20/A-2, and TC:C9:20/B-1.

We possess inadequate data to determine whether two specimens were interhumed in the fill of an abandoned room or beneath the floor of a room. The two which may have been buried in either way are: TC:C9:20/B-4 and TC:C9:20B-5.

Extremely scattered human skeletal remains were encountered in three house structures and represent seven different individuals. These fragmentary and incomplete specimens are numbered: TC:C9:4-1, TC:C9:4-2, TC:C9:9B-1,

TC:C9:9B-2, TC:C9:24-1, TC:C9:24-2 and TC:C9:24-3

Four specimens, TC:C9:20/D-1, TC:C9:20/D-2, TC:C9:20/D-3 and TC:C9:20/E-1 were apparently interred in graves outside house structures. We do not, however, have the information necessary to confirm this nor do we have data concerning the size, shape and nature of these graves.

Data concerning the position and orientation of the body is lacking for nearly all specimens.

Grave goods are known for only five burials and are sparse and ornamental for each. Four of the five can be attributed to the Sopris Phase; the "Sheriff's Dig" specimen does not possess provenience data. Three of the four Sopris Phase burials have accompanying grave goods and were associated with house structures and the fourth (TC:C9:302-2) probably was also; both sexes and various ages are represented.

Summary and Concluding Remarks

Complete or partial craniometric measurements (Table 11) were made on 10 specimens. This data shows a broad nasal form (chamaerrhine), narrow face (leptoprosopic), and a medium head form (mesobranic). However, the Cranial Index included three estimates which may be too high. Slightly lower indices would place the Cranial Index in the upper range of the dolichocranic category which would correlate with the Upper Facial Index and the Total Facial Index. A Robusticity Index of 15 indicates gracility. Sexual dimorphism is not pronounced in this sample; the supraorbital ridges ranged from medium to smooth with only slight differences between the sexes. The mean height for males is 153.0 cm.; for females, 151.0 cm.

The attrition rate of the molars was relatively high and the mandibles were well developed. A diet consisting in part of meal ground with stone implements is indicated by the archaeological evidence also.

Table 11

METRIC DATA

SITE-NUMBER	CI	UFI	TFI	OI	NI	RI	AGE (yrs)	SEX	STATURE (cm)
TC:C9:4-1	---	---	---	---	---	---	Birth	---	---
TC:C9:4-2	---	---	---	---	---	---	Adult	---	---
TC:C9:9-1	73	56	90	83	63	18	30-34	M	151.50 (?)
TC:C9:9-2	---	---	---	---	---	---	2-3	---	---
TC:C9:9B-1	---	---	---	---	---	---	20+	---	---
TC:C9:9B-2	---	---	---	---	---	---	Infant	---	---
TC:C9:19-1	---	---	---	---	---	---	Adult	---	---
TC:C9:20/A-1	83?	53	---	82	50	16	30-35	M	165.50
TC:C9:20/A-2	69.5	58	95.3	91	49	18	14-15	M	148.00
TC:C9:20/B-1	---	---	---	---	---	---	47+	M	157.00 (?)
TC:C9:20/B-2	---	---	---	---	---	---	2mo.-1yr.	---	---
TC:C9:20/B-3	70	---	---	---	---	17	22-25	F	151.00 (?)
TC:C9:20/B-4	73	54	86	83	57	19	25-29	M	156.50 (?)
TC:C9:20/B-5	76	61	96	81	45	16	35-40	M	163.00
TC:C9:20/C-1	80?	54?	87?	85	51	10	12	M?	144.00
TC:C9:20/D-1	---	---	---	---	---	---	B-1yr.	---	---
TC:C9:20/D-3	---	---	---	---	---	14	20-23	M	149.00
TC:C9:20/E-1	---	---	---	---	---	15	16-18	F	154.00 (?)
TC:C9:22-1	---	---	---	---	---	---	20-24	F	149.50
TC:C9:24-1	---	---	---	---	---	---	5-6	---	---
TC:C9:24-2	---	---	---	---	---	---	1	---	---
TC:C9:24-3	---	---	---	---	---	---	25+	---	---
TC:C9:102-1	---	---	---	---	---	---	5-6	---	---
TC:C9:145-1	---	---	---	---	---	---	8-10	---	---
TC:C9:302-1	---	---	---	---	---	14	50+	F	152.00
TC:C9:302-2	71	54	99	79	55	14	14-17	F	144.50
"Blasi Place"	---	---	---	---	---	17	15-16	M	155.50
"1954-6"	72	54	84	80	54	18	27-30	M	150.00
Sheriff's Dig	83?	57?	93?	86	52	17	30	F	155.00
MEAN	75?	55.6?	91.3?	83.4	53	15.23		Male: 153.00 Female: 151.00	

CI = Cranial Index, UFI = Upper Facial Index, TFI = Total Facial Index, OI = Orbital Index, NI = Nasal Index, RI = Robusticity Index, (?) = Estimated.

THE PHYSICAL SETTING

Physiography of the Raton Section

The area of this archaeological study lies within the geographical area known as the Park Plateau. Both Fenneman (1931: 37-47) and Thornbury (1965: 290, 313-315) describe this plateau as a subdivision of the Raton section of the Great Plains province. The Raton section is distinguished from the neighboring Colorado Piedmont section on the north by its higher altitudes, deep canyons, and greater abundance of volcanic phenomena; it contrasts with the High plains section on the east in the lack of a fluviatile cover. On its south the Raton section is set off from the Pecos Valley section by the prominent Canadian Escarpment; on the west the commonly stated boundary is the eastern front of the Sangre de Cristo Mountains of the Southern Rocky Mountain province (Thornbury 1965).

The Raton section as a whole can be described as a group of high mesas, extensively dissected plateaus, deep canyons and volcanic activity of various ages. Topographically, these plateaus and mesas can be subdivided into three groups: 1) the highest and central Raton Mesa group, 2) the intermediate Park Plateau at the north and 3) the lowest Las Vegas Plateau at the south.

The Raton section is drained by rivers that, with the exception of the Dry Cimarron, originate in or near the Sangre de Cristo Mountains; all flow to the Mississippi River. The Park Plateau is served by tributaries of two drainages, the Arkansas on the north and the Canadian on the south, with the divide between the two roughly corresponding with the Colorado-New Mexico line.

The Raton Mesa Group

The Raton Mesa group consists of high lava-capped mesas that extend from the vicinity of Trinidad, Colorado and Raton, New Mexico along the Colorado-New Mexico line eastward to the Oklahoma boundary. This east-west distance is about 90 miles. The mesas of this group including remnants isolated by erosion measure about 40 miles north-south with 20 miles an approximate average. The elevation of the group declines from about 9,600 feet above sea level at its western edge to approximately 5,000 feet near Kenton, Oklahoma.

Local relief varies considerably and ranges from a few hundred feet to more than 2,000 feet above the general level of the plains.

Southeast of Trinidad, Colorado, Raton Mesa (Known as Fisher's Peak) rises to 9,586 feet above sea level and nearly 4,000 feet above the Purgatoire River (a waterway which time has treated with several designations: Picketwire, Purgatory, El Rio de Las Animas Perdidas en Purgatorio, commonly translated as the River of Lost Souls in Purgatory, and others).

As many as eleven lava sheets can be seen in various mesas of this group. Individual lava flows range in thickness from 100 to 500 feet. In addition to these basalt flows, volcanic plugs can be seen on the north side of the mesas.

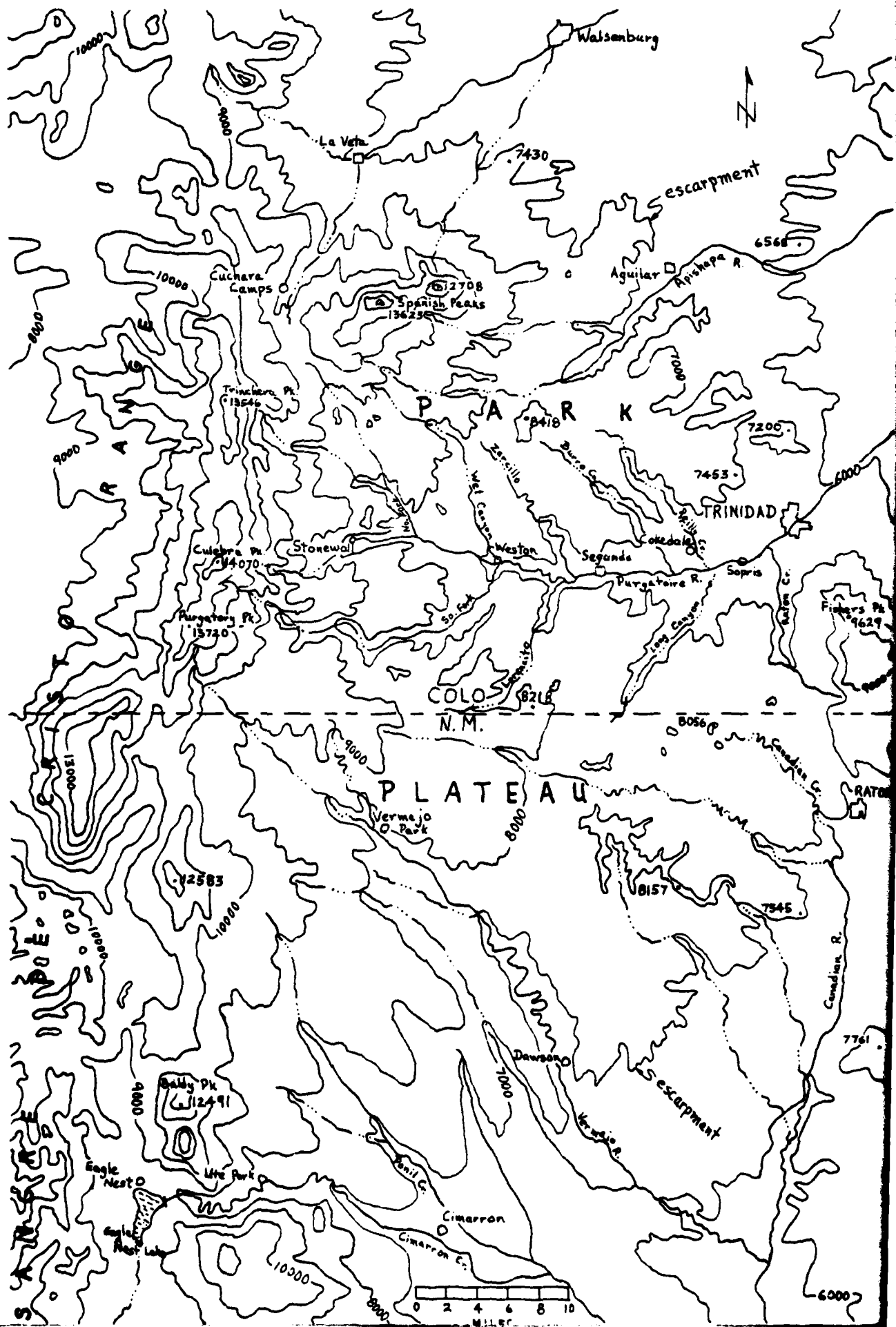
The Las Vegas Plateau Group

The Las Vegas Plateau proper lies in northeastern New Mexico south of the Raton Mesa group. The Chaquaque Plateau lies north of the mesa and east of the Park Plateau, corresponds both geologically

and physiographically to the Las Vegas Plateau and is treated by Fennermen (1931) as a part of the latter. The surface of this plateau group is largely a stratum plain on the strong Dakota sandstone which lies deeply buried elsewhere in the Great Plains. The surfaces of the plateaus rise near the mesas and the Park Plateau. The waterways have, in places, cut deep canyons into the stratum plain. These canyons are cut into or through the Dakota sandstone, creating considerable local relief (as much as 900 feet in the Chaquaqua Plateau by the Purgatorie River).

The Park Plateau

The Park Plateau is described by Fennermen (1931: 40-42) as a deeply dissected peneplain which extends north-south about 90 miles across the Colorado-New Mexico line. Its maximum width of approximately 40 miles occurs near this political boundary where it abutts both the Raton Mesa group and the Las Vegas Plateau group. The elevation of Park Plateau on its eastern edge is 7,000 to 7,500 feet where it presents an escarpment of 500 to 1,000 feet. An escarpment of 500 feet is fairly well maintained. The elevation of this plateau on resistant sandstones at the eastern front of the Sangre de Cristo Mountains is generally 8,500 feet. This portion of the Sangre de Cristos is sometimes referred to as the Culebra Range and possesses peaks in excess of 13,000 feet. The northermost portion of the plateau is virtually nonexistent north of the Cucharas River. Elsewhere, several periods of erosion have produced submature to mature dissection.



The northern portion of the plateau is drained by Southern tributaries of the Arkansas: the Cucharas, Apishapa and Purgatoire rivers. The southern portion of the plateau is drained by the Canadian River and several of its tributaries. Some of its tributaries, The Cimarron and Vermejo for two, each carry more water than the upper Canadian.

The Purgatoire, a perennial stream, carries a greater volume of water than any other waterway in the plateau; most streams (rivers) are intermittent. The canyons created in the plateau by the master streams and their tributaries are typically V-shaped in cross-section. (The Huerfano and Cimarron valleys, at the north and south of the plateau respectively, are each relatively wide, are not within the plateau proper and are not included in the previous statement.) The Purgatoire is atypical in possessing an in-plateau width of considerable span and a relatively large area of flood plain suitable for agricultural purposes. While other streams in the plateau display some expanses of valley floors, these are typically small, isolated and at higher elevations with shortened growing seasons.

The Park Plateau, though not of volcanic origin, does possess notable features of igneous origin. These are the twin nearly conical Spanish Peaks which are situated at the north edge of the plateau and southwest of Walsenburg, Colorado. These peaks of granite and grandiorite porphyry are in excess of 13,000 feet. Volcanic dikes radiate from their bases; 300 have been mapped and the actual number may be as high as 500 (Thornbury 1965:315). The dikes radiate 360 degrees from the peaks and have injected many sills into the strata of the plateau. Some of the dikes are as much as 50 feet

thick, 15 miles long and 5,000 feet in vertical relief (Harbour and Dixon 1959:462). These volcanic intrusions have probably hindered erosion (Fennermen 1931:42). Few signs of volcanic activity are displayed as far south as the canyon of the Purgatoire, however.

Climate of the Park Plateau

The climate of the plateau, as for all adjacent areas, is marked by extremes. The variation in the amount of annual precipitation is erratic and diurnal temperature fluctuation is considerable in this semiarid region. Most of the precipitation falls as rain with much of this in the form of summer thundershowers. Snow frequently covers the region in winter and accounts for about one fifth of the annual precipitation. The months of heaviest snowfall are December and January; snowfall in September and May is not uncommon. December and January are the coldest months; July and August are the warmest. Daily temperature fluctuations of 40 degrees Fahrenheit during the summer months are not unusual with smaller, but proportionately high, fluctuations in other seasons.

Climate in this relatively small geographical region is greatly affected by altitude: the elevation of the specific locale and also the nearby prominent geological features. Long-term, complete climatic records for specific locales on the Park Plateau are sparse (today no large communities are located on the plateau proper), but the climatic variables and hence the climate of the Trinidad, Colorado weather station and the Trinidad Reservoir project differ little. Table 12 presents a climatic summary of this weather station and 13 others.

Of this total, three are on the plateau (Cucharas Camps, North Lake and Vermejo Park), five are stations contiguous to the plateau (Trinidad, Walsenburg, Raton, Dawson and Cimarron) and six are major cities in the states of Colorado and New Mexico which are included for comparison. Examination of the climatic summary from plateau and contiguous stations reveals that, in general, higher elevations receive greater precipitation, with lower air temperatures and shortened growing season.

CLIMATIC SUMMARY

Station	Temperature				Killing Frost Avor Date				Average Precipitation												Elevation				
	Length of Record	Yr	Jan	July	Maximum	Minimum	Length of Record	Last in Spring	First in Fall	Growing Season	Length of Record	Jan	Feb	March	April	May	June	July	August	September			October	November	December
Trinidad, CO	35	13.9	71.9	99	-26	34	May 2	Oct. 16	167	39	43	.78	1.02	1.90	1.89	1.73	2.36	2.10	1.34	1.20	.76	.69	16.20	6,000	
Cucharas Camps, CO ¹	---	---	---	---	---	---	---	---	---	---	---	.27	.75	1.57	2.27	1.54	3.64	2.68	1.65	1.81	1.50	.88	.82	23.73	8,560
North Lake, CO ¹	---	---	---	---	---	---	---	---	---	---	---	.36	.71	1.19	1.76	2.24	1.99	1.81	3.15	1.72	1.22	.88	.82	21.34	8,520
Walsenburg, CO ²	---	---	---	---	---	---	---	---	---	---	---	.18	.65	.69	1.41	2.22	1.96	1.09	1.60	1.43	1.25	.66	.55	14.46	6,180
Raton, NM	40	30.3	69.1	104	-26	40	---	Oct. 2	146	38	34	.54	.70	1.29	1.96	1.90	2.89	2.36	1.96	1.12	.60	.46	.46	16.12	6,670
Dawson, NM	27	30.7	69.8	102	-36	27	May 5	---	---	---	---	.56	.64	1.15	1.97	1.99	2.87	2.60	1.40	1.45	.40	.37	.37	15.71	6,340
Cimarron, NM	35	32.4	68.7	100	-35	35	May 6	Oct. 11	158	35	28	.62	.97	1.44	1.85	1.74	2.66	2.40	1.58	1.32	.49	.39	.39	15.74	6,430
Vermejo Park, NM ²	19	28.3	63.1	95	-30	18	May 25	Sept. 23	121	21	47	.60	.95	1.64	1.29	1.52	3.73	3.07	1.39	1.14	.52	.56	.56	16.88	7,440
Denver, CO	40	32.0	72.5	105	-29	40	Apr. 26	Oct. 14	171	40	31	.55	1.13	2.11	2.01	1.29	1.58	1.46	1.20	1.04	.61	.70	.70	13.99	5,300
Colorado Springs, CO	40	30.2	68.2	98	-27	40	May 8	Oct. 3	148	40	22	.41	.73	1.54	2.18	1.67	2.61	2.34	1.21	.59	.35	.34	.34	14.19	6,170
Pueblo, CO	40	31.6	74.8	104	-27	40	Apr. 23	Oct. 14	174	40	26	.52	.66	1.37	1.51	1.29	1.87	1.73	.86	.60	.40	.47	.47	11.54	4,710
Taos, NM	37	26.3	68.5	101	-27	37	May 12	Oct. 5	146	38	68	.76	.87	1.05	1.40	.96	1.85	1.83	1.26	.96	.60	.49	.49	12.71	6,880
Santa Fe, NM	40	29.2	68.9	97	-13	40	Apr. 24	Oct. 19	178	40	66	.74	.81	1.07	1.46	1.19	2.28	1.90	1.68	1.11	.71	.58	.58	14.19	6,950
Albuquerque, NM	40	34.1	76.7	104	-10	37	Apr. 13	Oct. 28	198	40	14	.31	.38	.68	.68	.68	1.46	1.25	.94	.73	.50	.45	.45	9.40	4,950

1. These stations are on the Park Plateau.

2. Source of data: Harbaur and Dixon (1959:450); all other data from Hambridge (1942).

The Flora of the Park Plateau

Introduction

The terrestrial environment described here will be mainly the composition of and the physiographic variation in the flora. Virtually all plant species currently existing in the Trinidad Reservoir project area were identified and their distribution noted. This list of "real vegetation", which Kuchler (1964¹) defines as all kinds and types of flora present at the time of observation, is presented here. Also presented here is the "potential natural vegetation", the vegetation that would exist today if man were removed from the scene, for the Park Plateau and contiguous phytocenoses (Kuchler 1964).

The vegetation is varied and within a distance of five miles of the project area three distinct plant communities can be seen on the plateau. Areas of transition and mosaics of these three phytocenoses also occur. In a gross sense, most of the plateau can be classed as pine-fir forest with juniper-pinyon woodland nearly comprising the remainder. Grassland constitutes a small part of the total plateau area and is restricted to the canyon floors of the various drainages. Grassland, an intrusion from the high plains, extends nearly 30 miles up the Purgatoire; lesser areas are found in other canyons.

Potential Natural Vegetation of the Park Plateau

Kuchler (1964) describes three plant communities for the Park Plateau: a) Pine-Douglas fir forest, b) Juniper-pinyon woodland and c) Grama-buffalo grass grassland. The distribution of the pine-fir forest, as potential natural vegetation, extends from the lower slopes of the Sangre de Cristos onto the entire western edge of the plateau and across the mid-section of the plateau at the state line and south of the Purgatoire onto the Raton Mesa group. The areal extent of the juniper-pinyon woodland would be slightly less than for the forest. Occurring at elevations of less than 7,000 feet, the woodland would cover most of the plateau north of the Purgatoire. Small intrusions of grassland would occur on the other major waterways in the plateau.

Man's recent activities, including commercial timbering, mining, ranching, and residential settlements, have reduced the number and areal extent of trees in both the forest and woodland phytocenoses. The effects have included, among others erosion and increases in the ratios of subdominant components in these plant communities.

Kuchler's plant communities for the Park Plateau follow.

PINE-DOUGLAS FIR FOREST (PINUS-PSEUDOTSUGA)

Physiognomy: Open to dense forests of tall needle-leaf evergreen trees, often with much undergrowth

Dominants: Ponderosa pine (Pinus ponderosa)
Douglas fir (Pseudotsuga menziesii)

Other Components: Acer glabrum, Alnus tenuifolia,
Elaeagnus angustifolia, Ceanothus fendleri, Chamaebatiaria
millefolium, Festuca arizonica,
Holodiscus dumosus, Jamesia
americana, Juniperus communis var.
montana, Picea pungens, Pinus
flexilis, Prunus emarginata, Ribes
app., Salix spp.

Occurrence: Southern Rocky Mountains

JUNIPER-PINYON WOODLAND (JUNIPERUS-PINUS)

Physiognomy: Open groves of needleleaf ever-
green low trees with varying
admixtures of shrubs and herba-
ceous plants

Dominants: One-seed juniper (Juniperus mono-
sperma)
Utah juniper (Juniperus osteosperma)
Pinyon pine (Pinus edulis) (more in
eastern part)
Oneleaf pine (Pinus monophylla)
(more in western part)

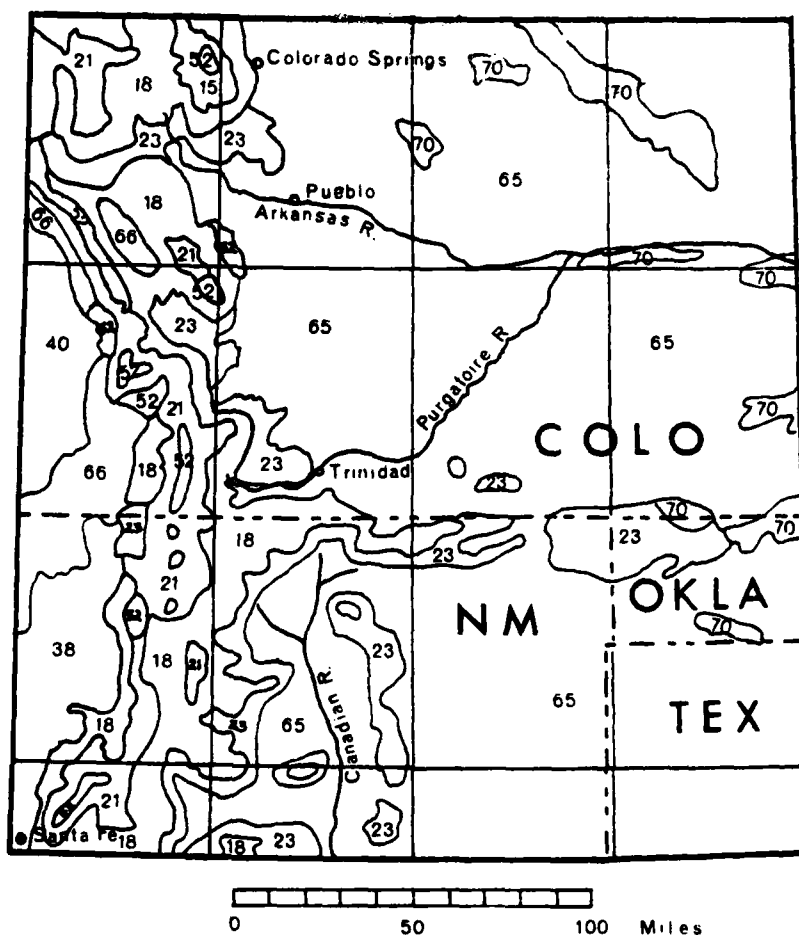
Other Components: Agropyron smithii, Artemisia tri-
dentata (not in southern part),
Bouteloua curtipendula, B. gracilis,
Ceanothus spp., Cercocarpus spp.,
Chrysothamnus spp., Cowania mexi-
cana, Fallugia paradoxa, Juniperus
deppeana, (southern part), J. occi-
dentalis, Oryzopsis hymenoides,
Purshia tridentata, Quercus emoryi,
Q. gambelii, Q. grisea, Q. undulata,
Sporobolus cryptandrus

Occurrence: California to Colorado; southward
to Arizona and New Mexico.

GRAMA-BUFFALO GRASS (BOUTELOUA-BUCHLOE)

Physiognomy: Fairly dense grassland of short
grass with somewhat taller grasses
in the eastern sections

POTENTIAL NATURAL VEGETATION*



Units of Vegetation

- 15 Western Spruce-Fir Forest
- 18 Pine-Douglas Fir Forest
- 21 Southwestern Spruce-Fir Forest
- 23 Juniper-Pinyon Woodland
- 38 Great Basin Sagebrush
- 40 Saltbush-Greasewood
- 52 Alpine Meadows and Barren
- 65 Grama-Buffalo Grass
- 66 Wheatgrass-Needlegrass
- 70 Sandsage-Bluestem Prairie

* From Küchler (1964).

Dominants: Blue grama (Bouteloua gracilis)
Buffalo grass (Buchloe dacty-
loides)

Other Components: Agropyron smithii, Aristida pur-
purea, Bouteloua curtipendula, B.
hirsuta, Gaura coccinea, Grinde-
lia squarrosa, Haplopappus spinu-
losus, Lycurus phleoides, Mublen-
bergia torreyi, Opuntia spp.
(southern part), Plantago pur-
shii, Psoralea tenuiflora, Ratibida
columnifera, Senecio spp., Sitanion
hystrix, Sphaeralcea coccinea,
Sporobolus cryptandrus, Yucca
glauca, Zinnia grandiflora

Occurrence: Eastern parts of New Mexico and
Colorado, southeastern Wyoming,
western parts of Nebraska, Kansas,
Oklahoma and Texas

The grama-buffalo grass community predominates north, east and south of the plateau. The three vegetational zones on the east slope of the Sangre de Cristo Mountains, in order of ascending elevation, are: the Previously mentioned pine-fir forest, spruce-fir forest and alpine meadows and barren.

SOUTHWESTERN SPRUCE-FIR FOREST (PICEA-ABIES)

Physiognomy: Dense to open stands of low to medium tall needleleaf evergreen trees

Dominants: Corkbark fir (Abies lasiocarpa
var. arizonica)
Engelmann spruce (Picea engel-
mannii)

Other Components: Abies lasiocarpa, Acer glabrum,
Juniperus communis, Pachystima
myrsinites, Pinus aristata, P.
flexilis, Populus tremuloides,
Ribes spp., Salix bebbiana,
Sambucus racemosa, Symphori-
carpos vaccinoides

Occurrence: Southern Rocky Mountains and
Arizona

ALPINE MEADOWS AND BARREN (AGROSTIS, CAREX, FESTUCA,
POA)

Physiognomy: Usually short grasses and sedges,
dense to very open with extensive
barren areas; many forbs

Dominants: Bentgrass (Agrostis spp.)
Sedges (Carex spp.)
Hairgrass (Deschampsia caespitosa)
Fescue (Festuca viridula)
Woodrush (Luzula spicata)
Mountain timothy (Phleum alpinum)
Bluegrass (Poa spp.)
Spike trisetum (Trisetum spicatum)

Other Components: Achillea spp., Antennaria spp.,
Aquilegia spp., Arenaria spp.,
Castilleja spp., Draba spp.,
Erigeron compositus, lichen spp.,
Oxyria digyna, Pentstemon fruti-
cosus, Phacelia spp., Phlox caes-
pitosa, Polemonium spp., Poly-
gonum spp., Potentilla diversifolia,
Potentilla spp., Salix nivalis,
Salix spp., Saxifraga spp., Sela-
ginella spp., Sibbaldia procumbens,
Sieversia turbinata, Solidago spp.

Occurrence: Rocky Mountains, Cascade Range,
Sierra Nevada

The Flora of the Trinidad Reservoir

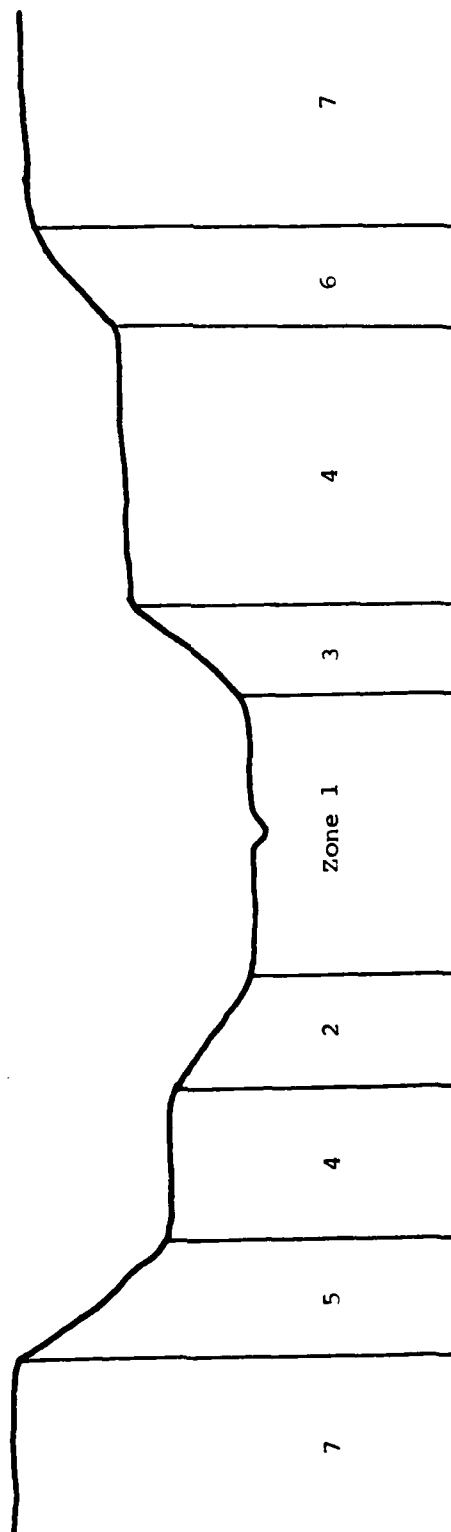
The identification of the vegetation of the reservoir project and adjacent areas began in May 1972 under the direction of Ruth L. Henritze. Henry M. Geisman volunteered his expert services. His knowledge of the native vegetation proved invaluable. Sandra Prator was in charge of preservation of all collected floral specimens.

The area of this floral study extended from the Trinidad City Limits, west about 20 miles up the Purgatoire and three miles both north and south of the river. Several of each of the classes of land forms were visited during each of the seasons. The plants were identified in the field if possible and seeds were collected.

The terraces and portions of the flood plain not under cultivation can be classed as grassland. Thickets of willow and cottonwood skirt the river channels. The adjacent hilltops are wooded with a light to medium cover of pinyon and juniper. The slopes of the hills display a transition of the two plant communities; areas of mosaics occur also. The amount of land available for vegetation, especially terraces, has been reduced by coal mines, mine talus piles, coke ovens, small mining settlements, transportation (highway and railroad), and erosion. The density of woodland trees (especially juniper) has recently been lowered with the probably subsequent effects that grassland has invaded former woodland territory and that grasses and forbes (herbaceous plants) now comprise a relatively high proportion of the woodland plant community. To the south of the Purgatoire, the pine-fir forest today extends to within about four miles of the project area.

Fig. 21 shows an idealized cross-section of the Purgatoire Valley in the reservoir project area. The tabulations of identified floral species follow:

IDEALIZED CROSS SECTION OF THE PURGATOIRE VALLEY IN THE TRINIDAD RESERVOIR PROJECT



Zone 1 Flood plain of the Purgatoire River

2 Steep slope of terrace, north exposure

3 Steep slope of terrace, south exposure

4 Terrace

5 Steep slope of hilltop, north exposure

6 Steep slope of hilltop, south exposure

7 Hilltop

IDENTIFIED FLORA OF THE TRINIDAD RESERVOIR

Zone 1, Floor Plain

Prickly Pear Cactus	<u>Opuntia polyacantha</u>
Wild Mustard, False Flax	<u>Camelina microcarpa</u>
Skelton Weed, Prairie Pink	<u>Lygodesmia juncea</u>
Plantain	<u>Plantago purshii</u>
Bull Thistle	<u>Cirsium lanceolatum</u>
Knotweed	<u>Polygonum sp.</u>
Scarlet Gaura or Butterfly Weed	<u>Gaura coccinea</u>
Prairie Clover	<u>Petalostemon purpureus</u>
Gumweed	<u>Grindelia squarrosa</u>
Tufted Evening Primrose	<u>Oenothera coespitosa</u>
Cutleaf Evening Primrose	<u>Anogra coronopifolia</u>
Willow-leaved Dock	<u>Rumex mexicanus</u>
Rocky Mountain Beeplant	<u>Cleome serrulata</u>
Snow-on-the mountain	<u>Euphorbia albomarginata</u>
Loco Weed	<u>Astragalus lambesti</u>
Scarlet Bugler or Red Penstemon	<u>Penstemon barbatus</u>
Wild Clematis or Virgin's Bower	<u>Clematis ligusticifolia</u>
Bindweed	<u>Convolvulus arvensis</u>
Buttercup	<u>Ranunculus sp.</u>
Tall Beardtongue	<u>Penstemon unilateralis</u>
Prickly Poppy	<u>Argemone sp.</u>
Leather Flower, Bush Clematis	<u>Clematis douglasi</u>
Storksbill	<u>Erodium cicutarium</u>

Salisfy, Goat Dandelion	<u>Tragopogon duvius</u>
Stick Seed	<u>Lappula floribunda</u>
Stemless Actinea, Perky Sue	<u>Actinea acaulis</u>
Narrow Leaf Plantain	<u>Plantago lanceolata</u>
Lamb's Quarters	<u>Chenopodium album</u>
Yellow Sweet Clover	<u>Melilotus officinalis</u>
Cocklebur	<u>Xanthium echinatum</u>
Fairy Trumpet	<u>Gilia aggregata</u>
Toad Flax, Butter-and-egges	<u>Linaria vulgaris</u>
Alsike Clover	<u>Trifolium hybridum</u>
Mountain Sage, Fringed Sage	<u>Artemisia frigida</u>
Fleabane	<u>Erigeron divergens</u>
Summer Cypress	<u>Kochia scoparia</u>
White Sweet Clover	<u>Melilotus alba</u>
Common Sunflower	<u>Helianthus annuus</u>
Fetid Marigold, Dogweed	<u>Dyssodia papposa</u>
Indian Paintbrush, Painted Cup	<u>Castilleja confusa</u>
Houndstongue	<u>Cynoglossum officinale</u>
Blue Vervain	<u>Verbena hastata</u>
Dragonhead	<u>Cracocephalum parviflorum</u>
Hoarhound	<u>Marrubium vulgare</u>
Flannel or Common Mullien	<u>Verbascum thapus</u>
Russian Thistle	<u>Salsola kali</u>
Thelesperma, Rayless Greenthread	<u>Thelesperma gracile</u>
Aspen Daisy	<u>Erigeron macranthus</u>
Bush Morning Glory	<u>Ipomoea leptophylla</u>

Blue or Chicory Lettuce	<u>Lactuca pulchella</u>
Roughseed Clammyweed	<u>Polanisia trachysperma</u>
Plains Evening Primrose	<u>Anogra albicaulis</u>
Yellow Flax	<u>Linum puerulum</u>
Varileaf Cinquefoil	<u>Potentilla diversifolia</u>
Wild Lettuce	<u>Lactuca sp.</u>
Curled Dock	<u>Rumex crispus</u>
Colorado Rubber Plant	<u>Actinea richardsonii</u>
Buffalo Bur	<u>Solanum rostratum</u>
Dove Weed, Croton	<u>Croton texensis</u>
Western Chokecherry	<u>Prunus melanocarpa</u>
Blueberry Elder	<u>Sambucus glauca</u>
Wild, Wax or Squaw Currant	<u>Ribes cereum</u>
New Mexican Locust	<u>Robinia neomexicana</u>
Gooseberry	<u>Ribes sp.</u>
Snowberry	<u>Symphoricarpos oreophilus</u>
Threadleaf Sedge	<u>Carex filifolia</u>
Sleepy Grass	<u>Stipa robusta</u>
Indian Ricegrass	<u>Oryzopsis hymenoides</u>
Brome	<u>Bromus sp.</u>
Red Three-awn	<u>Aristida longiseta</u>
Green Foxtails	<u>Setaria viridis</u>
Bur Reed	<u>Sparganium sp.</u>
Sand Dropseed	<u>Sporobolus cryptandrus</u>
Common Cattails	<u>Typha latifolia</u>
Horsetail or Scouring Rush	<u>Equisetum laevigatum</u>

Rush	<u>Juncus sp.</u>
Crested Wheatgrass	<u>Agropyron cristatam</u>
Canada Wild Rye	<u>Elymus canadensis</u>
Prairie Cordgrass	<u>Spartina pectinata</u>
Cheatgrass, Downybrome	<u>Bromus tectorum</u>
Junegrass	<u>Koeleria cristata</u>
Meadow Fescue	<u>Festuca elatior</u>
Lanceleaf Cottonwood	<u>Populus acuminata</u>
Plains Cottonwood	<u>Populus sargenti</u>
Narrowleaf Cottonwood	<u>Populus angustifolia</u>
Peach-leaf Willow	<u>Salix amygdaloides</u>

Zone 2, North Exposure

Bull Thistle	<u>Cirsium lanceolatum</u>
Knotweed	<u>Polygonum sp.</u>
Skeleton Weed, Prairie Pink	<u>Lygodesmia juncea</u>
Scarlet Gaura, Butterfly Weed	<u>Gaura coccinea</u>
Wild Mustard, False Flax	<u>Camelina microcarpa</u>
Leather Flower, Bush Clematis	<u>Clematis douglasi</u>
Plantain	<u>Plantago purshii</u>
Fleabane	<u>Erigeron divergens</u>
Common Sunflower	<u>Helianthus annuus</u>
Prickly Pear Cactus	<u>Opuntia polyacantha</u>
White Sweet Clover	<u>Melilotus alba</u>
Mountain or Fringed Sage	<u>Artemisia frigida</u>
Wild Clematis, Virgin's Bower	<u>Clematis ligusticifolia</u>
Stick Seed	<u>Lappula floribunda</u>
Soapweed, Yucca	<u>Yucca glauca</u>
Mountain Beardtongue	<u>Penstemon glaber</u>
Wild Onion	<u>Allium cernuum</u>
Sego or Mariposa Lily	<u>Calochortus nuttalli</u>
Indian Paintbrush, Painted Cup	<u>Castilleja confusa</u>
Houndstongue	<u>Cynoglossum officinale</u>
Stickleaf	<u>Mentzelia pumila</u>
Wild Buckwheat	<u>Eriogonum sp.</u>
Wild Rose	<u>Rosa sp.</u>
Flannel or Common Mullien	<u>Verbascum thapsus</u>
Russian Thistle	<u>Salsola kali</u>
Thelesperma, Rayless Greenthread	<u>Thelesperma gracile</u>

Aspen Daisy	<u>Erigeron macranthus</u>
Blazing Star	<u>Liatris punctata</u>
Groundsel	<u>Senecio</u> sp.
Three-tip Sagebrush	<u>Artemisia tripartita</u>
Dove Weed, Croton	<u>Croton texensis</u>
Woodbine, Virginia Creeper	<u>Parthenocissus vitacea</u>
Skunkbush, Three-leaf Sumach	<u>Rhus trilobata</u>
Gambel's or Scrub Oak	<u>Quercus gambelli</u>
American or Wild Plum	<u>Prunus americana</u>
Western Chokecherry	<u>Prunus melanocarpa</u>
Gooseberry	<u>Ribes</u> sp.
Mountain Mahogany	<u>Cercocarpus montanus</u>
Green Foxtails	<u>Setaria viridis</u>
Brome	<u>Bromus</u> sp.
Western Wheat	<u>Agropyron smithii</u>
Threadleaf Sedge	<u>Carex filifolia</u>
Needle and Thread Grass	<u>Stipa comata</u>
Blue Grama Grass	<u>Bouteloua gracilis</u>
Bottlebrush Squirreltail	<u>Sitanion hystrix</u>
Cheatgrass, Downybrome	<u>Bromus tectorum</u>
Pinyon Pine	<u>Pinus edulis</u>
Boxelder	<u>Acer negundo</u>
Thinleaf or Mountain Alder	<u>Alnus tenuifolia</u>
Blueberry Elder	<u>Sambucus glauca</u>

Zone 3, South Exposure

Prickly Pear Cactus	<u>Opuntia polyacantha</u>
Bush Morning Glory	<u>Ipomoea leptochylla</u>
Prairie Clover	<u>Petalostemon purpureus</u>
Mountain or Fringed Sage	<u>Artemisia frigida</u>
Prickly Poppy	<u>Argemone hispida</u>
Beardtongue	<u>Penstemon glaber</u>
White Sweet Clover	<u>Melilotus alba</u>
Stick Seed	<u>Lappula floribunda</u>
Coyote Gourd, Coyote Melon	<u>Curcubita palmata</u>
False Alfalfa	<u>Psoralea tenuiflora</u>
Three-leaf Sumach, Skunkbush	<u>Rhus trilobata</u>
Western Chokecherry	<u>Prunus melanocarpa</u>
Gambel's or Scrub Oak	<u>Quercus gambelli</u>
Four-wing Saltbush	<u>Atriplex canescens</u>
Cane Cactus, Cholla	<u>Cylindropuntia imbricata</u>
Sleepy Grass	<u>Stipa robusta</u>
Blue Grama Grass	<u>Bouteloua gracilis</u>
Red Three-awn	<u>Aristida longiseta</u>
Sand Dropseed	<u>Sporobolus cryptandrus</u>
Pinyon Pine	<u>Pinus edulis</u>

Zone 4, Terrace

Stick Seed	<u>Lappula floribunda</u>
Plantain	<u>Plantago purshii</u>
Prairie Clover	<u>Petalostemon purpureus</u>
Soapweed, Yucca	<u>Yucca glauca</u>
Prickly Pear Cactus	<u>Opuntia polyacantha</u>
Fleabane	<u>Erigeron divergens</u>
Indian Paintbrush, Painted Cup	<u>Castilleja confusa</u>
Stemless Actinea, Perky Sue	<u>Actinea acaulis</u>
Bill Thistle	<u>Cirsium lanceolatum</u>
Wild Buckwheat	<u>Eriogonum sp.</u>
Coneflowers	<u>Ratibida columnaris</u>
Giant Ragweed	<u>Ambrosia trifida</u>
Heliotrope	<u>Heliotropium sp.</u>
Plains Evening Primrose	<u>Anogra albicaulis</u>
Threadleaf Sage	<u>Artemisia filifolia</u>
Common Sunflower	<u>Helianthus annuus</u>
Lamb's Quarters	<u>Chenopodium album</u>
Russian Thistle	<u>Salsola kali</u>
Fairy Trumpet	<u>Gilia aggregata</u>
Summer Cypress	<u>Kochia scoparia</u>
Skunkbush, Three-leaf Sumach	<u>Rhus trilobata</u>
Four-wing Saltbrush	<u>Atriplex canescens</u>
Western Chokecherry	<u>Prunus melanocarpa</u>
Cane Cactus, Cholla	<u>Cylindropuntia imbricata</u>
Blue Grama Grass	<u>Bouteloua gracilis</u>
Western Wheat	<u>Agropyron smithii</u>

Red Three-awn

Bottlebrush Squirreltail

Sand Dropseed

Ring Muhly

Pinyon Pine

One-seed Juniper

Aristida longiseta

Sitanion hystrix

Sporobolus cryptandrus

Muhlenbergia torrey

Pinus edulis

Juniperus monosperma

Zone 5, Steep Slope of Hilltop
North Exposures

Prickly Pear Cactus	<u>Opuntia polyacantha</u>
Fairy Trumpet	<u>Gilia aggregata</u>
Woodbine, Virginia Creeper	<u>Parthenocissus vitacea</u>
Stemless Actinea, Perky Sue	<u>Actinea acaulis</u>
Gumweed	<u>Grindelia squarrosa</u>
Leather Flower, Bush Clematis	<u>Clematis douglasi</u>
Wild Clematis, Virgin's Bower	<u>Clematis linguisticifolia</u>
Aspen Daisy	<u>Erigeron macranthus</u>
Plains Evening Primrose	<u>Anogra albicaulis</u>
Mountain or Fringed Sage	<u>Artemisia frigida</u>
Beardtongue	<u>Penstemon glaber</u>
Wild Onion	<u>Allium cernuum</u>
Wild Buckwheat	<u>Erigonum sp.</u>
Blazing Star	<u>Liatris punctata</u>
Groundsel	<u>Senecio sp.</u>
Indian Paintbrush, Painted Cup	<u>Castilleja confusa</u>
False Alfalfa	<u>Psoralea tenuiflora</u>
Soapweed, Yucca	<u>Yucca glauca</u>
Three-tip Sage	<u>Artemisia tripartha</u>
Heliotrope	<u>Heliotropium sp.</u>
Prickly Poppy	<u>Argemone sp.</u>
Bindweed	<u>Convolvulus arvensis</u>
Plains Cactus	<u>Pediocactus simpsonii</u>
Western Chokecherry	<u>Prunus melanocarpa</u>
Snowberry	<u>Symphoricarpos oreophilus</u>

Gambel's or Scrub Oak	<u>Quercus gambelli</u>
Four-wing Saltbrush	<u>Atriplex canescens</u>
Wild, Wax or Squaw Currant	<u>Ribes cereum</u>
New Mexican Locust	<u>Robinia neomexicana</u>
Skunkbush, Three-leaf Sumach	<u>Rhus trilobata</u>
Mountain Mahogany	<u>Cercocarpus montanus</u>
Blue Grama Grass	<u>Bouteloua gracilis</u>
Sand Dropseed	<u>Sporobolus cryptandrus</u>
Tumble Grass	<u>Schedonnardus paniculatus</u>
Canada Wild Rye	<u>Elymus canadensis</u>
Pinyon Pine	<u>Pinus edulis</u>
One-seed Juniper	<u>Juniperus monosperma</u>
Colorado Juniper	<u>Juniperus scopulorum</u>

Zone 6, Steep Slope of Hilltop
South Exposure

Prairie Clover	<u>Petalostemon purpureus</u>
Bull Thistle	<u>Cirsium lanceolatum</u>
Prickly Pear Cactus	<u>Opuntia polyacantha</u>
Stickleaf	<u>Mentzelia pumila</u>
Common Sunflower	<u>Helianthus annuus</u>
Coyote Gourd or Coyote Melon	<u>Cucurbita palmata</u>
Plantain	<u>Plantago purshii</u>
White Sweet Clover	<u>Melilotus alba</u>
Wild Buckwheat	<u>Eriogonum sp.</u>
Lamb's Quarters	<u>Chenopodium album</u>
Summer Cupress	<u>Kochia scoparia</u>
Mountain Beardtongue	<u>Penstemon glaber</u>
Soapweed, Yucca	<u>Yucca glauca</u>
Indian Paintbrush, Painted Cup	<u>Castilleja confusa</u>
Horsetail or Whorled Milkweed	<u>Asclepias galioides</u>
Fleabane	<u>Erigeron divergens</u>
Yellow Sweet Clover	<u>Melilotus officinalis</u>
Snow-on-the mountain	<u>Euphorbia albomarginata</u>
Rocky Mountain Beeplant	<u>Cleome serrulata</u>
Aspen Daisy	<u>Erigeron macranthus</u>
Threadleaf Sage	<u>Artemisia filifolia</u>
Milkweed	<u>Asclepias sp.</u>
Gambel's or Scrub Oak	<u>Quercus gambelli</u>
New Mexican Locust	<u>Robinea neomexicana</u>
Four-wing Saltbrush	<u>Atriplex canescens</u>
Indian Ricegrass	<u>Oryzopsis hymenoides</u>

Blue Grama Grass

Western Wheat

Ring Muhly

Side-oats grama

Red Three-awn

Sleepy Grass

Vine Mesquite

Tumble Grass

Colorado Juniper

Pinyon Pine

Bouteloua gracilis

Agropyron smithii

Muhlenbergia torrey

Bouteloua curtipendula

Aristida longiseta

Stipa robusta

Panicum obtusum

Schedonnardus paniculatus

Juniperus scopulorum

Pinus edulis

Zone 7, Hilltop

Soapweed, Yucca

Stemless Actinea, Perky Sue

Beardtongue

Fairy Trumpet

Prickly Pear Cactus

Fleabane

Mountain or Fringed Sage

Wild Buckwheat

Plains Cactus

Aspen Daisy

Wild Onion

Indian Banana, Datil Yucca

Skunkbush, Three-leaf Sumach

Snowberry

Cane Cactus, Cholla

Four-wing Saltbrush

Wild, Wax or Squaw Currant

Blue Grama Grass

Pinyon Pine

One-seed Juniper

Yucca glauca

Actinea acaulis

Penstemon glaber

Gilia aggregata

Opuntia polyacantha

Erigeron divergens

Artemisia frigida

Eriogonum sp.

Pediocactus simpsonii

Erigeron macranthus

Allium cernuum

Yucca baccata

Rhus trilobata

Symphoricarpos oreophilus

Cylindropuntia imbricata

Atriplex canescens

Ribes cereum

Bouteloua gracilis

Pinus edulis

Juniperus monosperma

Distrubed or Cultivated Areas

Flannel or common Mullien	<u>Verbascum thapus</u>
Rocky Mountain Beeplant	<u>Cleome serrulata</u>
Salsify, Goat Dandelion	<u>Tragopogon duvius</u>
False Alfalfa	<u>Psoralea tenuiflora</u>
Balzing Star	<u>Liatris punctata</u>
Wild Onion	<u>Allium cernuum</u>
White Sweet Clover	<u>Melilotus alba</u>
Stickleaf	<u>Mentzelia pumila</u>
Plantain	<u>Plantago purshii</u>
Stemless Actinea, Perky Sue	<u>Actinea acaulis</u>
Snow-on-the-mountain	<u>Euphorbia albomarginata</u>
Buffalo Bur	<u>Solanum rostratum</u>
Prickly Pear Cactus	<u>Opuntia polyacantha</u>
Wild Lettuce	<u>Lactuca sp.</u>
Roughseed Clammyweed	<u>Polanisia trachysperma</u>
Common Sunflower	<u>Helianthus annuus</u>
Cocklebur	<u>Xanthium echinatum</u>
Sleepy Grass	<u>Stipa robusta</u>
Cheatgrass, Downybrome	<u>Bromus tectorum</u>

Soil Types of the Trinidad Reservoir Area

The following soil descriptions were provided by M. Bruce McCullough,
Soil Conservation Service, Trinidad Office.

Table Mountain loam, 0 to 3% slopes. This soil occurs on stream terraces and is quite variable in depth. Most of the area is 40 inches or more to sand and gravel but small areas, 20 to 40 inches in depth throughout. It is dark friable loam down to the sand and gravel. Water intake is moderate. Water holding capacity is about 2 inches per foot of soil depth. Water tables commonly occur below 10 foot depths.

Fort Collins very fine sandy loam, 3 to 9% slopes. This is a deep soil noncalcareous and neutral to about 28 inches. The surface grades from very fine sandy loam to loam and is about 8 inches thick. The blocky, clay loam subsoil extends to 38 inches. The underlying material is loam or light clay loam. This soil occurs along upland drainways and is commonly dissected by a deep V-shaped gully. Sandstone bedrock is exposed in places along the gullied areas. Water intake rate is moderate. Runoff is rather rapid on these sloping soils. Water holding capacity is 2 to 2 1/2 inches per foot of soil depth and is highest in the clay loam subsoil.

Louviers-Travessilla Channery loam, 30 to 70% slopes. These are very steep areas shallow to interbedded sandstone, siltstone, and shale. Usually a sandstone layer occurs at the crest of these areas. Sandstone and shale outcrop comprise 10 to 20% of the area. South facing slopes are often nearly barren while north facing slopes are commonly covered with oak brush and pinyon trees. The soils are noncalcareous and neutral. Surface layers are channery loams or channery clay loams. Much of the very steep side slopes are underlain by weathered shale and have a silty clay loam subsoil. Narrow loamy valleys are included within these areas.

Recent Economic Development in the Park Plateau

Trinidad is five miles east of the Trinidad Reservoir, is located on the Purgatoire River where it exits the plateau and is the largest city in the vicinity of the Park Plateau in Southeastern Colorado and Northern New Mexico. Trinidad was on the Mountain Branch of the Santa Fe Trail. This branch of the trail was opened by William Becknell in 1821 and went south over Raton Pass near where the plateau meets the Raton Mesa group. The first stage line through this area began in 1861 and gave impetus to the slowly growing population of this unformed city; Trinidad organized for incorporation as a city in 1877.

Trinidad later became known as a center for ranching and mining. Most of the areas cattle ranching, both in terms of number of livestock and acreage, is peripheral to the plateau itself. The coal of the Park Plateau was noted by Emory in 1846 but was not mined until 1873 (Harbour and Dixon 1959:475). The Trinidad coal field, which lies in Las Animas and Huerfano Counties, Colorado, as well as the Raton, New Mexico field were developed rapidly because of the superior chemical and physical properties. The period of greatest production was from 1905 to 1927; a high of nearly eight million short tons was mined in 1910. Many small communities were established on the plateau in this period including Piedmont, Sopris and St. Thomas, which were destroyed by clearing activities for the reservoir. The production of the Trinidad field has ranked number one or two in Colorado, but has declined since the Depression. This bituminous coal has typically been mined by the room-and-pillar method. Formerly much of this coal was treated in beehive ovens near the tipples and shipped to industrial centers as coke. Today most

of the mines of the plateau are owned by corporations. The largest currently producing mine is the Allen Mine about 25 miles west of the reservoir which is used at the Colorado Fuel and Iron Steel Mill in Pueblo, Colorado.

Hard rock mining has never been of economic importance in the region. The gold mining on Cimarron Creek and its tributaries in New Mexico ceased by World War II.

In the Purgatoire Valley, Colorado Highway 12 and the Colorado and Wyoming Railroad extend west of Trinidad and through the reservoir area. These two transportation routes have altered the land forms (especially terraces) and have, in all probability, destroyed prehistoric archaeological sites. They have reduced the amount of land available for vegetation as have the coal mines and their associated settlements and coke ovens. The demand for wood for mine timbers, fence posts and residential fuel has reduced the number of trees in this portion of the valley and its canyon tributaries. This plus overgrazing contributed to arroyo-cutting in historic times. Limited portions of the flood plain of the Purgatoire have been subjected to the modern agricultural pursuit of irrigated farming with alfalfa and corn the principle crops.

These activities plus other factors have unquestionably altered the vegetation in recent years. The construction of the Trinidad Dam with attendant subdevelopment will probably continue this process.

The Trinidad Reservoir Project

This project was authorized by Congress in the 1958 Flood Control Act. It is being constructed under the supervision of the United States Army Corps of Engineers, Albuquerque District. That office has supplied most of the following information. Trinidad Dam will afford flood protection to the city of Trinidad, four miles downstream, and the Purgatoire Valley, conserve irrigation water and control sediment.

The outlet works were completed in 1970 and land clearing was finished in 1972. Construction of the main embankment began in 1972. Clement Brothers Construction Company of Hickory, North Carolina is the contractor.

When completed, the embankment will be 200 feet high, 6,610 feet long and will contain about 8,000,000 cubic yards of earth. Its permanent pool will contain 4,500 acre-feet of water and cover 230 surface acres. The initial permanent pool will contain 43,500 acre-feet 39,000 of which is for sediment control. The top of the flood control pool will extend nearly five miles upstream and will impound 114,500 acre-feet of water covering 2,030 surface acres. Irrigation water will be used on about 20,000 acres. The project is expected to be completed in 1976 at an estimated total cost of \$42 million.

The reservoir will inundate an area where the small mining communities of Sopris, St. Thomas and Piedmont once stood. Colorado Highway 12 will be relocated to the north of the project, and the Colorado and Wyoming Railroad will be relocated along the southern edge of the reservoir.

THE RUNNING PIT HOUSE SITE
Herbert W. Dick

The following is an undated manuscript by Dr. Dick, Adams State College, Alamosa, Colorado. I have made only minor editorial changes in the original manuscript. For the most part, these revisions are inclusions of additional data. This manuscript, site map and collected specimens from this site are currently on deposit at Trinidad State Junior College. The Faunal Analysis and Comments and Conclusions sections are by me and under my name. Dr. Dick's continued interest in and support of Trinidad archaeology is greatly acknowledged. S.K.I.

Introduction

The Running Pit House Site was excavated during the fall of 1954 and spring of 1955 by Trinidad High School students. The project was under the direction of Herbert W. Dick, instructor at Trinidad State Junior College. High school teachers, Mr. Douglas and Mr. Minnis, assisted.

The purpose of the project was twofold: 1) to obtain additional information concerning the early inhabitants of southeastern Colorado and 2) to train students in archaeological field and laboratory techniques. The site was selected for excavation because it was felt that it was in danger of being destroyed by pot hunters and erosion. Since untrained high school students were employed, it was desired that the excavation be relatively simple. However, the surface indications did not reveal the true architectural nature.

The site is located at the confluence of Mulligan Canyon and Reilly Canyon. Reilly Canyon, from its entrance into the Purgatoire, proceeds northwest. Mulligan Canyon enters Reilly Canyon from the north $5\frac{1}{4}$ miles from the Purgatoire River. The site is a narrow tongue of land bound on the east by Mulligan and on the west and south by Reilly Canyon (T. 33S, R. 65W, NE SW S.3). The approximate elevation is 6,700 feet above sea level. The slope of a 6,860 foot terrace bounds the site on the north.

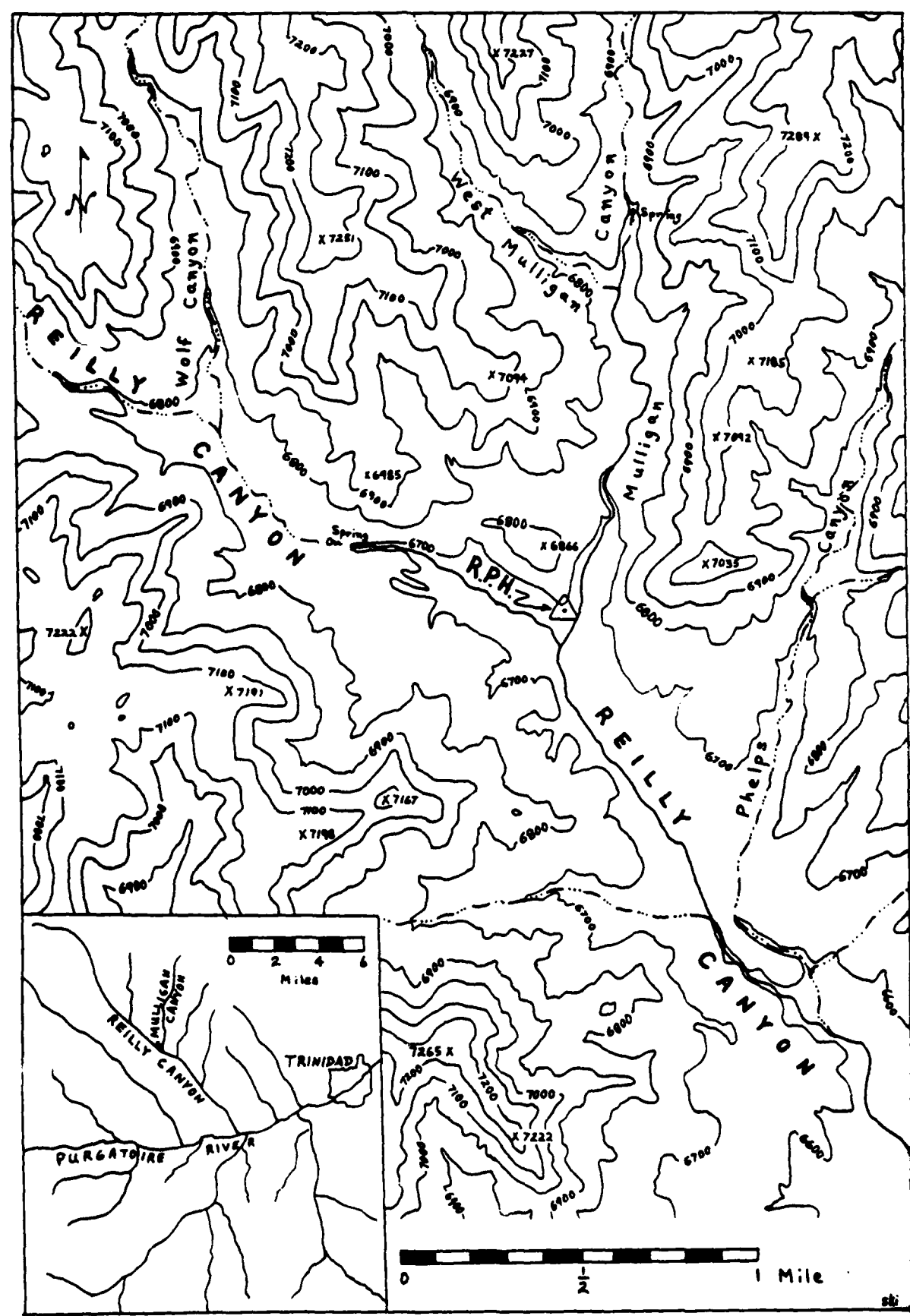
From the site, five miles of bottomland in Reilly Canyon and $\frac{3}{4}$ mile of bottomland in Mulligan Canyon can be seen. This bottomland, though now in the process of excessive erosion, was probably used by the peoples of this site for farming.

Architecture

The Running Pit House site is a multiroomed pit house. The site has four connected quasi-circular pits, or rooms, and a bench (Fig. 22). Two of the pits show evidence of backfill. There is good reason to believe that Rooms Three and Four represent an earlier occupation, and were filled. Room Four was filled with rock, while Room Three had a fill of rock and detritus. In the backfill of Room Three, two posts were found still intact. Twelve posts in all were found in the site. All twelve of these posts were in the rooms or on the bench.

The method of construction of the pits is somewhat obscured by time. The pits were dug an average of one meter into native soil, which is a shale. On several parts of the excavated wall, rock was found. It was assumed, due to this evidence, and the amount of rock in the site,

RUNNING PIT HOUSE SITE LOCATION MAP



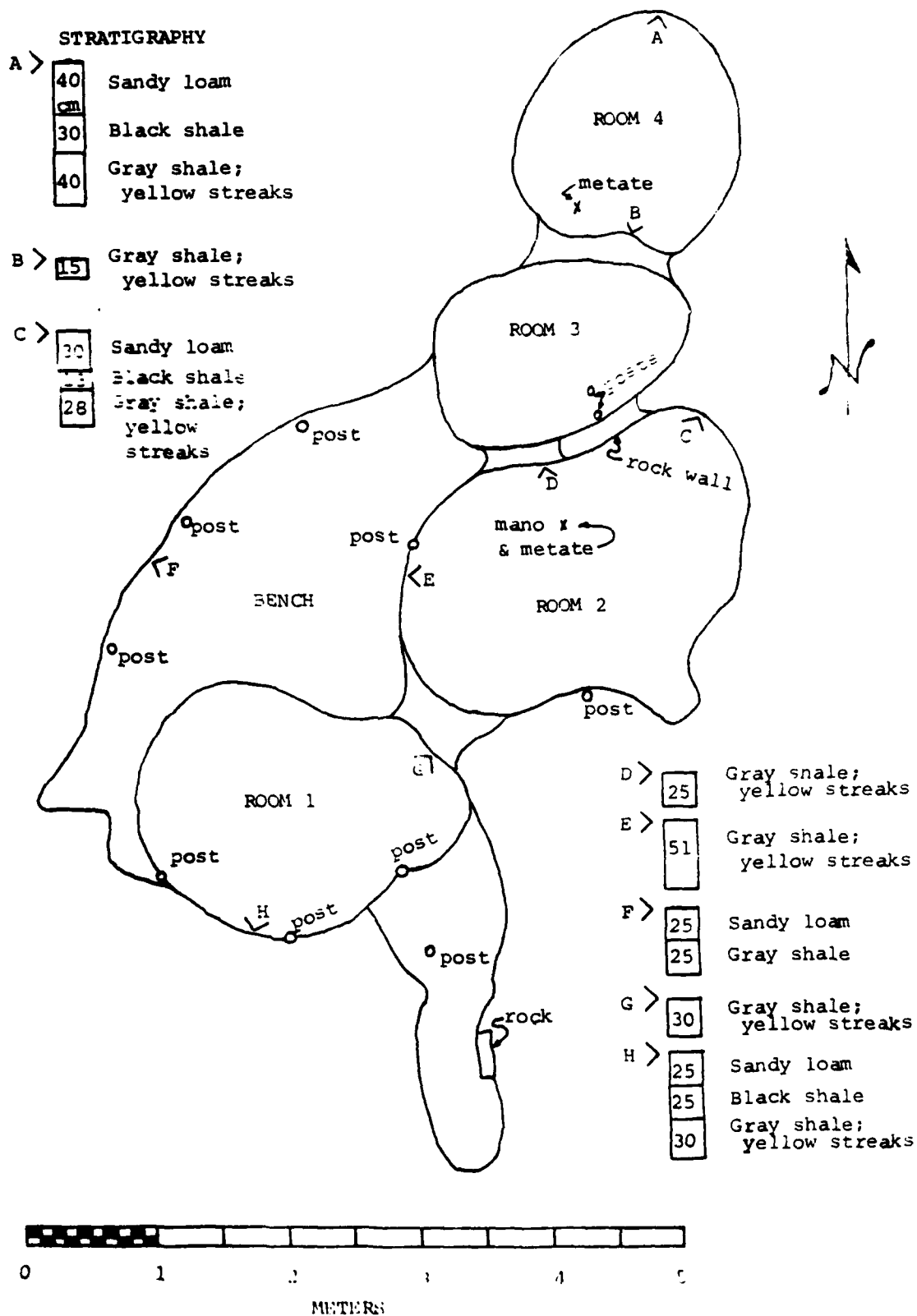




Fig. 24a. Running Pit House Site, 1954. View is to the northeast from Reilly Canyon.



Fig. 24b. Running Pit House Site, 1954. View is southward with Reilly Canyon in background.

that rock was used to build a short retaining wall above the excavated wall.

Between each of the four major rooms, a small excavated partition separates the rooms. These partitions are between 15 cm. (the partition between Rooms Three and Four) and 30 cm. (the partition between Room One and Two) high. These excavated doorways are about 15 cm. thick and are well defined.

In the partition between Rooms Two and Three, in addition to the excavated wall, an extension of rock and detritus is built. On the floor of Room Two, against the east wall, we found in place a possible foundation for a retaining wall.

The posts in the rooms were not placed in excavated holes. They were placed on the floor with rocks used as props around the posts.

Three posts are on the outer perimeter of the bench, which is also excavated into native soil. These posts are excavated into the floor. They are surrounded by plaster, of which we have found baked casts and rocks. So many plaster casts were found that it is probably they were used for chinking also.

Artifacts

Projectile Points

Type I points are triangular with notches placed at the corners. The base is expanding, but narrower than the blade. The base is straight to convex. Tangs are sharp and symmetrical. Type II are triangular and corner-notched. The base is parallel-sided and straight. Tangs are symmetrical and sharply oblique. Type III points are triangular and corner-

notched. The base is expanding, but narrower than the blade. The tangs are short, rounded and asymmetrical. Type IV are fragments (tips only) of points which probably were triangular. They may or may not have been notched. Type V points are triangular and unnotched. The bases are convex while the sides are straight.

Type	Measurements in cm.			Material	Label
	l	w	th		
I	2.3+	1.2	0.4	Quartzite	H-B
I	2.1	1.4	0.3	Argillite	HR
I	1.8+	1.1	0.3	Chalcedony	HR
I	2.1	1.0	0.3	Argillite	HS
I	2.2	1.2	0.2	Argillite	H-4
I	1.5	1.0+	0.2	Argillite	HS
I	1.7	1.2+	0.2	Argillite	HR
I	1.4+	1.0	0.2	Argillite	H-S
I	1.5+	1.1	0.3	Obsidian	HR
I	1.6+	1.3	0.2	Argillite	H-S
I	2.9+	2.2	0.5	Argillite	Reil 3
I	4.1+	2.3	0.6	Argillite	H-R
II	1.6	1.1	0.2	Argillite	HR
II	1.5+	1.0	0.3	Argillite	H-S
II	1.6+	1.1	0.3	Argillite	HS
II	1.6+	1.0	0.3	Chalcedony	HR
III	2.3	1.0	0.4	Argillite	H-R
III	1.1	1.0	0.3	Chalcedony	HS
III	3.0	1.0	0.4	Chalcedony	HB
III	2.1	1.0	0.5	Quartzite	HR
III	1.8	1.1	0.4	Argillite	HR
III	2.0	1.4	0.4	Argillite	H-S
III	2.2	1.0+	0.2+	Argillite	HR
III	1.5+	1.0	0.3	Argillite	HS
III	1.3+	1.0	0.4	Chalcedony	HS
IV	1.8+	1.9+	0.4+	Argillite	HR
IV	2.3+	1.2+	0.3+	Argillite	HR
IV	2.0+	1.0+	0.3+	Argillite	HB
IV	1.5+	0.7+	0.3+	Argillite	H-S
V	1.7	1.2	0.4	Argillite	HS
V	2.6	1.7	0.5	Argillite	Reil-3

Note: A plus sign (+) indicates specimen incomplete in that dimension.

Drills

Three of the drills have well worked blades with unworked knobs at the base. The fourth is broken and does not possess a base.

Length (cm.)	Shaft dia.	Base Width	Material	Label
3.2+	0.7	2.3	Argillite	H-4
4.2+	0.7	1.4	Argillite	HR
3.1+	0.5	1.7	Argillite	HS
4.0+	0.9	---	Argillite	HS

Knives

All the knives are bifacial and show poor workmanship. Two are triangular, another is broken and was probably triangular, one is elliptical and one has no definable shape.

Measurements in cm.			Material	Label	Comments
l	w	th			
4.0	2.3	0.7	Argillite	Reil-3	Triangular
3.7	2.6	0.8	Argillite	HS	Triangular
5.1+	3.8+	0.7+	Argillite	Reil-3	Probably triangular
4.3	3.6	0.9	Argillite	H-A	Elliptical
4.6+	3.3+	0.8	Argillite	HB	

Scrapers

Type I is a completely shaped, circular scraper--rather crude. Type II scrapers are only partially shaped. They are keeled and pointed. On the edges of the point there is shaping. Type III has a concave working surface. There is no general shape other than this surface.

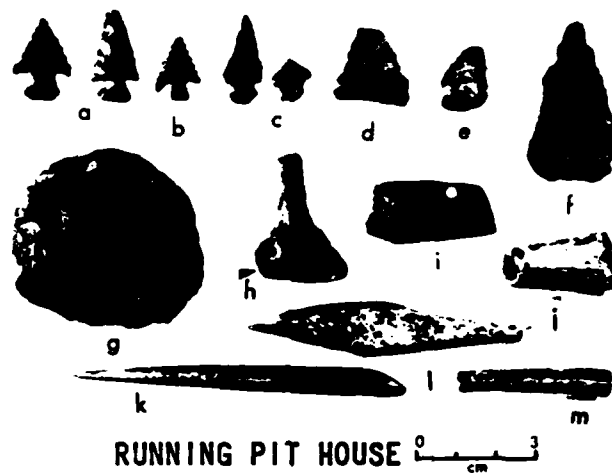


Fig. 25. Running Pit House Artifacts

- a. Type I projectile points, HR & HB.
- b. Type II projectile point, HR.
- c. Type III projectile points, HR & HS.
- d. Type IV projectile point fragment, HR.
- e. Type V projectile point, HS.
- f. Knife, Reil. 3.
- g. Knife, H-R.
- h. Drill fragment, H-4.
- i. Drilled graphite, HR.
- j. Phalanx bead, HR.
- k. Bone awl, H-R.
- l. Bone awl, Reil-3.
- m. Bone bead.

Type	Measurements in cm.			Material	Label
	l	w	th		
I	4.7	4.4	1.4	Argillite	H-R
II	7.8	4.3	1.8	Argillite	HR
II	6.0	3.5	1.2	Argillite	HS
II	4.5	4.6	1.9	Argillite	HR
II	2.7	4.2	1.4	Argillite	HA
III	3.9	2.3	1.5	Argillite	HR
III	4.2	3.8	1.6	Argillite	HR

Gravers

The tips of these gravers have well-defined tips. The rest of the graver has no definable shape.

Measurements in cm.			Material	Label
l	w	th		
3.3	1.7	0.6	Argillite	H-B
2.0	1.5	0.3	Argillite	H-S

Metates

Type I is a trough-shaped and pecked metate of sandstone. Type II are shaped and pecked sandstone metates with flat grinding surfaces. Type III are fragments of shaped sandstone basin metates. Type IV is a fragment of a small basin metate. It was ground on both flat sides and well-shaped.

Type	Measurements in cm.		
	l	w	th
I	50	30	7
II	55	30	6
II	45	28	6
III	?	32	6
III	?	35	7
III	?	28	7
IV	?	16	6

Manos

Type I are shaped, plano-convex and pecked on both ends. Material is sandstone. Type II is shaped, slightly double convex and pecked on both ends. Material is a very coarse sandstone.

Type	Measurements in cm.		
	l	w	th
I	19	8	5.5
I	20	7.5	5
II	17	9	3.5

Graphite

All six specimens have been worked or utilized. Three show a great deal of usage, perhaps an attempt to shape the material. The basic shape of these three is rectangular with a near triangular cross section and three flat surfaces. One of the three has a 0.4 cm. hole drilled through it near one edge. The hole was drilled from both sides. The other three specimens are generally larger, show less use and have a more or less rounded shape.

Measurements in cm.			Label	Comments
l	w	th		
2.0	1.4	0.7	HR	Drilled hole
2.7	1.0	0.8	HR	
3.3	1.5	1.0	HR	
3.0	2.9	2.2	HR	
2.8	2.4	1.9	HR	
2.3	1.9	1.5	HS	

Pendant

This is a ground and polished pebble of metamorphic stone. There has been an attempt to drill a hole near one end. It measures 1.8 x 0.9 x 0.6 cm. and is labeled: HB.

Bone Beads

Type I beads were made from the phalanges of an ungulate, probably deer. Both the proximal and distal ends were ground until the hollow center was exposed. Type II beads are from the limb bones of small mammals--probably rabbit. One has a single incised groove around its circumference.

Type	Measurements in cm.		Label	Comments
	1	O.D.		
I	3.7	1.6	HR-2	Charred
I	2.3	1.4	HR	Charred
I	2.9	1.4	H-4	
I	2.5	1.6	HR	
I	2.9	1.5	H-4	
II	3.8	0.6	HR	
II	2.4	0.7	Reil-3	
II	2.1	?	Reil-3	Fragment
II	1.7	0.9	Reil-3	
II	1.6	0.9	HR	
II	1.4	1.0	HB	
II	1.5	1.1	HR	Fragment

Type	Measurements in cm.		Label	Comments
	1	O.D.		
II	1.3	?	HR	Fragment
II	1.3	0.5	H-B	
II	1.3	0.6	HR	Incised
II	1.2	0.4	Reil-3	
II	1.1	0.7	Reil-3	
II	1.0	0.4	H-4	
II	0.8	0.7	Reil-3	
II	0.6	?	HR	Fragment

Bone Bead Ends

These are the cut ends of limb bones--probably rabbit. They are the ends of bones used to make beads. The humerus and femur are represented by these four specimens.

Bone Awls

Type I are awls made from splinters of bone. They are ground and polished over their entire surfaces. Type II are also splinters of bone, but only the tip has been ground to a point. One is probably from an unidentified bird. All others of both types are mammalian.

Type	Measurements in cm.		Label	Comments
	l	dia.		
I	8.9	0.6	H-R	
I	7.6	0.8	Reil-3	
I	4.5	0.5	Reil-3	
II	7.9+	0.8	H-Rl	
II	7.2+	1.4	Reil-3	
II	4.3+	0.6	HR	Bird Bone
II	3.3+	0.4	Reil-3	

Worked Bone

One specimen is a short piece of rib from a larger animal (deer?) which has been cut on both ends. Perhaps it was a bead. Another specimen is a rib fragment (deer, too?) which is cut on one end and the other end is broken. The third specimen is a fragment of an animal bone which has been ground to a spatula-like tip. It is charred and broken.

Measurements in cm.			Label	Comments
l	w	th		
1.1	1.5	0.5	Reil-3	Cut rib
3.5+	1.1	0.7	HR	Cut rib fragment
2.6+	0.9+	0.2+	HR	Spatulate charred fragment

Worked Shell

Two specimens have cut rounded edges. Both are fragmental and originally may have been round or oval with drilled holes.

Measurements in cm.			Label
l	w	th	
1.5+	2.0	0.1	HR
1.2+	2.0+	0.1	HR

Faunal Analysis

Stephen K. Ireland

An analysis of the bones retrieved from The Running Pit House Site was not included in Dr. Dick's manuscript. I examined this faunal collection (entirely non-human osteological) and identified the animal represented to the lowest possible taxon, the element, side of body and portion present if fragmental. The comparative osteological collection of the Laboratory of Archaeology, Trinidad State Junior College was used extensively. My analytical procedures followed those outlined previously (Ireland and Wood 1973:51, 53).

The examined collection is small (only 236 items, mostly fragmental) and presumably represents the total faunal assemblage recovered during the excavation of this site. Due to the highly fragmental condition of most items, few could be classified taxonomically and to specific element represented.

The bones of the following animals were present in this collection: deer (Odocoileus, probably hemionus or virginianus), Cottontail Rabbit (Sylvilagus, probably audubonii), Jack Rabbit (Lepus, probably californicus) and gopher (Cratogeomys, probably castanops). A small fragment of an avian long bone is included in the assemblage, but lower taxonomic classification is not possible.

A minimum of three adult deer are indicated. This count is based upon three left distal metatarsal fragments. About equal numbers were labeled "HR," "Room 3" and "H-4." These are: two maxilla fragments with dentition, two mandible fragments with dentition, proximal and distal fragments of a right radius, a proximal right ulna fragment, a complete left scaphoid, two

complete left lunates, one complete left magnum, two complete left cuneiforms, a proximal left metatarsal fragment, three distal left metatarsal fragments (one burned), a left first phalanx (split longitudinally), two left second phalanges, one right second phalanx (split longitudinally) and a left third phalanx.

Many items could not be taxonomically classified because of their nature, but appear to be the bones of deer. These 156 items include: six cranial fragments, three scapula fragments, 16 rib fragments, five complete ribs and 126 splinters of long bones 17 of which are charred. The distribution of these items is about the same as those positively identified as deer.

A minimum of three Cottontail Rabbits is indicated by the presence of three proximal right femur fragments. A total of 17 identified items include: two left maxillae, one right maxilla, one complete and one fragmentary left mandible, one complete and one fragmentary right mandible, one distal left humerus (an artifact), two distal right humeri (one charred and one artifact), one proximal left femur (an artifact), two distal left femora, three proximal right femora (one artifact) and one distal right femur. The four artifacts included above were cut to manufacture beads. Identified Cottontail bones were labeled "HR," "Room 3" and "H-4."

The presence of a single Jack Rabbit is indicated by a distal left humerus. It is labeled "Room 3."

The complete skull of a gopher was labeled "HR." It is considered to be of non-cultural origin.

Numerous items from small mammals could not be identified. They may represent rodents or rabbits or both. Included are: 30 long bone fragments, five scapula fragments, three rib fragments and two pelvis fragments.

A small fragment of the shaft of a long bone represents a bird of unknown taxonomic classification. It is labeled "H-4."

Comments and Conclusions

Stephen K. Ireland

An examination of this manuscript by Dick and its reported artifacts and notes by Dick and Minnis prompt several comments. First, the manuscript and notes mention 12 posts while the original plan map (reduced in size and given here as Fig. 22) shows only 11. This discrepancy cannot be explained here. Second, the manuscript and notes do not explain what could, by visual inspection of that figure, be interpreted as another bench that extends south from Room 1. No satisfactory explanation can be offered here. Third, the fact that carbonized corn was retrieved from the site is not specifically mentioned in the manuscript.

The incidence of pit houses in the Park Plateau is apparently quite low. As yet none have been reported for the Purgatoire River drainage but the possibility exists that unreported sites TC:C9:102 and TC:C9:184 contain pit houses. Further south on the plateau, a pit house has been located on North Ponil Creek on the Philmont Scout Ranch owned by the Boy Scouts of America (Glassow 1967). This pit house has been designated as NP-1/Area 1 and was excavated in 1963 by Glassow. Though the details are not available, this North Ponil pit house appears to be more "Southwestern" with ventilator shaft, deflector and central posts. This pit house may date as early as the eighth century, A.D.

The Running Pit House Site contained, in a stratigraphic sense, pit houses. They apparently lacked the architectural refinements of the North Ponil pit house. These four habitation structures in Reilly Canyon are of the same origin (Anasazi) and seem to be of the same approximate time span (Basketmaker III). However, the absence of ceramics at the Running Pit

House Site and its lack of architectural refinements does point to another temporal possibility: Basketmaker II. The absence of reported sites of the Basketmaker periods in the Park Plateau hinders conclusions of a temporal nature. Largely at the subjective level, I favor a late BM II to early BM III date for the occupation of the Running Pit House Site.

Regardless, the occupants of this site raised corn, hunted game and quite possibly gathered wild vegetal foods. The assemblage of collected specimens does not clearly indicate whether the houses were occupied year-round or seasonally.

TRINIDAD RESERVOIR AREA SITES

Brief History of Site Numbering Systems at Trinidad State Junior College

The initial system used by Haldon Chase utilized a coded abbreviation for the river drainage upon which the site was located. The letter abbreviation was used in conjunction with a consecutive number. The site designation of P6, for example, indicated the sixth site to be found on the Purgatoire River. Herbert Dick continued using this system for a while, then initiated the site designation method currently practiced. There was presumably a record of all pertinent information such as location, evidence of architecture and specimens collected for each site numbered by the Chase scheme. None of the original recorded data is currently on deposit at Trinidad State Junior College. Presumably all such data was rerecorded when Dick renumbered previously known sites. The possibility exists that not all Chase numbered sites were assigned new site numbers by the Dick formula because of the lack of site location data. A case in point is site P56 which apparently was not given a new number and whose location is documented only by the name of a side canyon of the Purgatoire River.

The Dick technique of assigning site numbers consists of a three part designation. Site TC:C9:144 will be used as an example. The first part or prefix is an abbreviation for Trinidad College. The middle part of stem represents the location of the site within a large areal grid. Each such grid measures 12 Sections north-south and nine Sections east-west and covers an area of 108 Sections (approximately 108 square miles). This horizontal grid system has been imposed over Las Animas County, Colorado and can be expanded to cover portions of contiguous counties without major modifications. The example, grid C9, is in the Southwestern portion of Las Animas

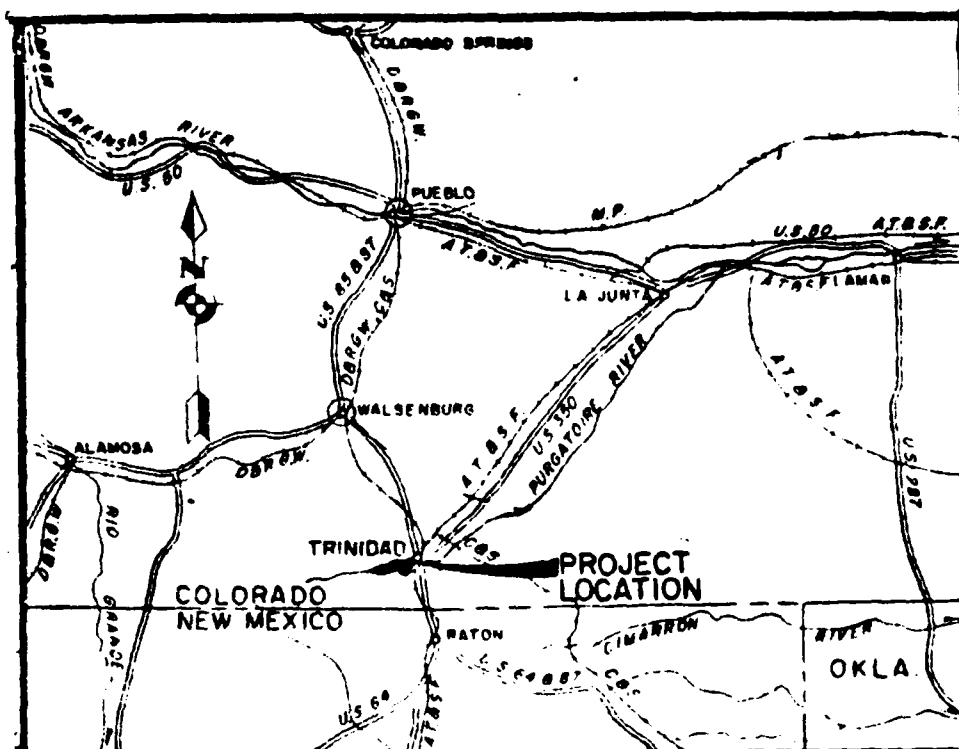
County, includes the southwestern part of the City of Trinidad; extends to the New Mexico state line on the south; and includes all of the Trinidad Reservoir Project in its northern half. The suffix in the site designation is a number which is to be assigned consecutively. In theory, the suffix in the example TC:C9:144 indicates that particular site was the 144th to be recorded in grid C9. However, in several instances, the same site has been assigned two separate designations within the Dick system. Site TC:C9:5 and site TC:C9:144 are the same site; the former designation was assigned in 1957, the latter was given in 1965.

Other notable errors committed in the application of this system of site designation in grid C9 include the assignment of the same number to two sites in separate locales (TC:C9:1 and TC:C9:8, for example), the failure to assign the suffix in consecutive order resulting in failure to assign numbers (for example, TC:C9:59 through TC:C9:99 were apparently never assigned), and the assignment of duplicate numbers because of the absence of precise data on site location (TC:C9:9B/TC:C9:10, for example).

Dick's site numbering system did not define site criteria nor did it define the intra-site terminology to be utilized. Consequently, each investigator supplied his own criteria and method(s) the intricacies of which were not always recorded.

The Sites

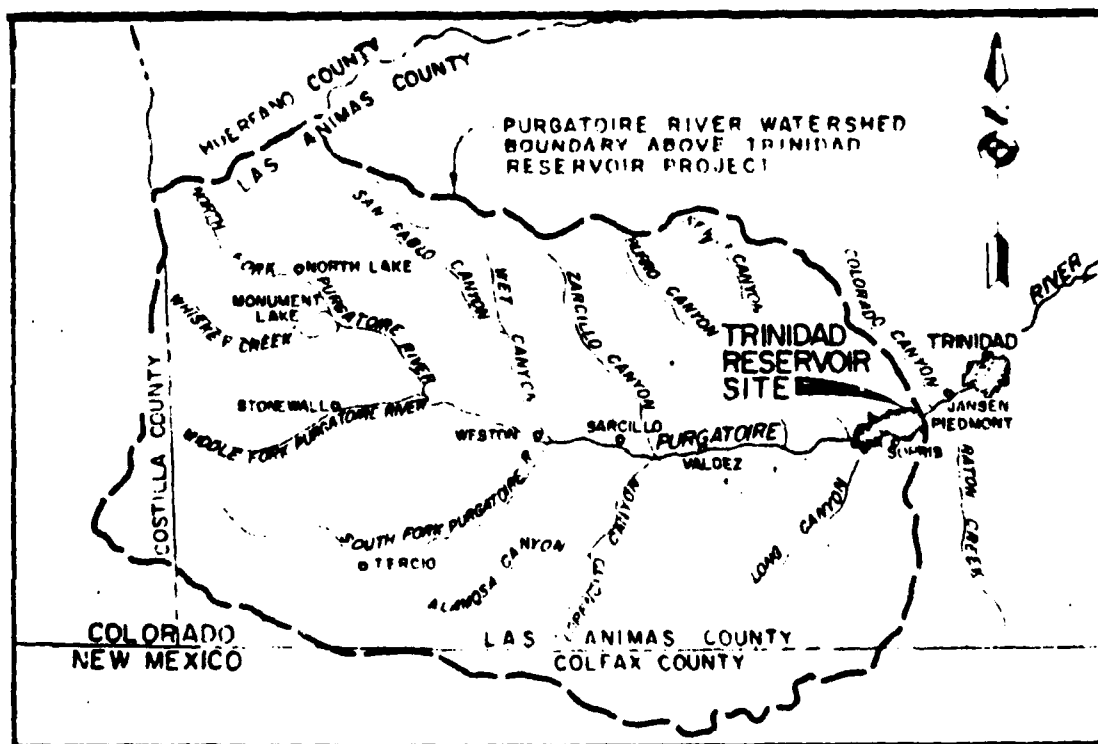
The following is a history of known archaeological sites in the Trinidad Reservoir Area. The synthesis of all known data, this listing gives the basic information on each site's designation(s), location, history and classification. Most of the available data came from site survey cards, excavational notes and photographs on file at the Laboratory of Archaeology, Trinidad State Junior College. Additional information came from a preliminary report on Trinidad Reservoir sites by Dick (1963). In 1972 approximately 40% of the project area above the flood plain was resurveyed in an effort to verify previously recorded site data and to locate previously unrecorded sites, especially areas of limited activity (non-habitation). Some of the sites were not relocated. And in some instances, recorded data, especially architectural, could not be verified which resulted in a change of the classification given that site. For example, many of the sites here called flint knapping/observation areas were formerly recorded as habitation sites with "dry-laid" stone or "rock-on-rock" walls. In these instances, our examination in 1972 showed that the supposed walls were outcrops of sandstone, portions of which were naturally factured into pieces of the approximate size and shape utilized by prehistoric occupants of the area. The 1972 resurvey revealed an unnoted tepee ring (TC:C9:303) and areas of lithic debitage adjacent to habitation structure at TC:C9:144.



VICINITY MAP

SCALE IN MILES

0 50 100



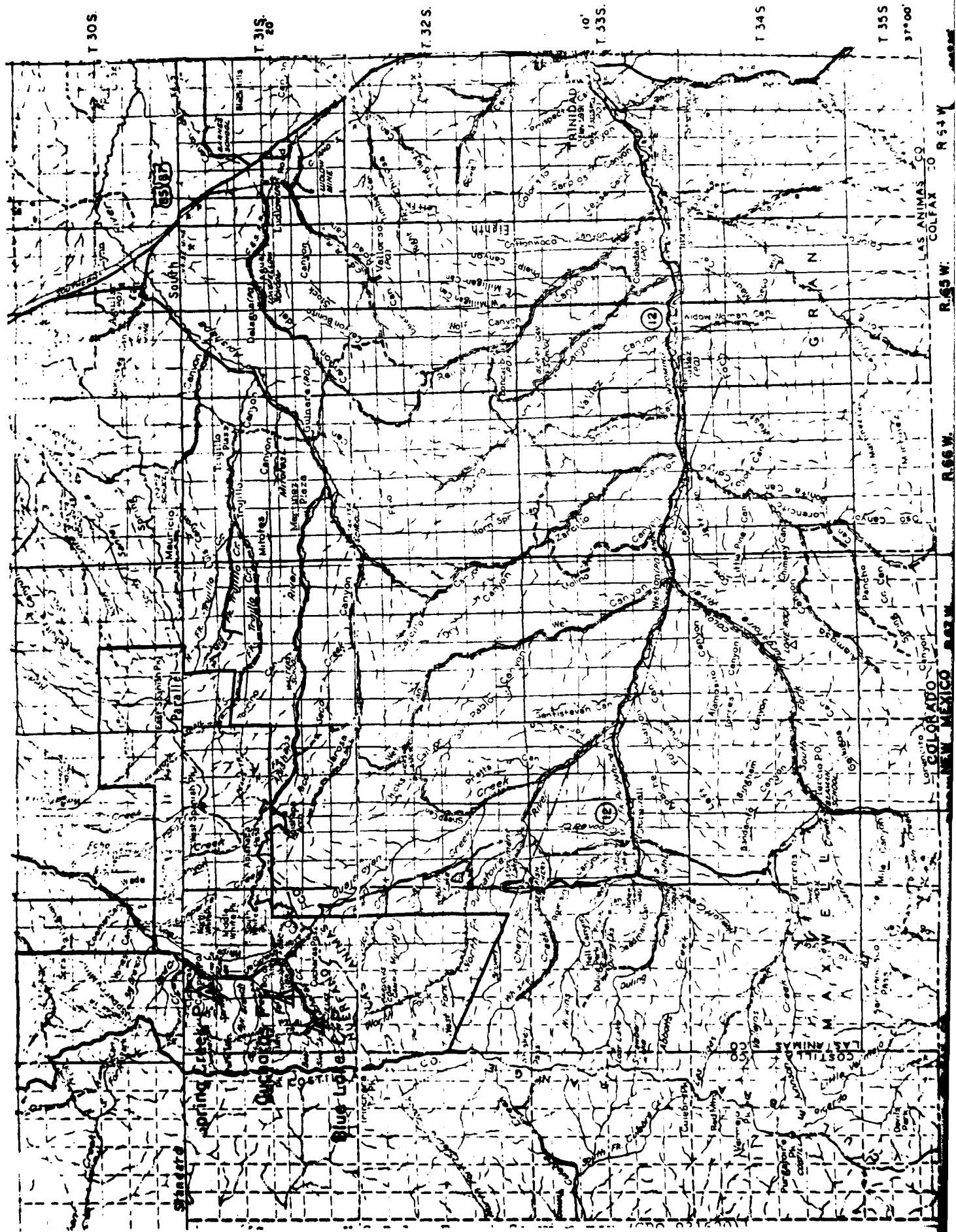
WATERSHED MAP

SCALE IN MILES

0 2 4 6 8 10 12 14 16

Source: U.S.C.E. map (File # AR-TRD-H-1)

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Site designation: TC:C9:1 (Dick-1957) T. 33S, R. 64W. NE SW Sec. 26

Other designation: TC:C9:143 (Baker-1964)

Location: On high sandstone bluff overlooking Raton Creek. Site is nearly 100 feet above creek and on its east side. Elevation about 6,300 feet.

Site classification: Sopris Phase habitation structure.

Basis for classification: Strong evidence for puebloid stone masonry architecture, 4-6 rooms. Collected artifacts include two sherds--either locally manufactured Taos Incised or Sopris Plain.

Site history: Surveyed: Dick, 1957; Baker, 1963; Ireland, 1972.

Comments: Site nearly completely potted prior to 1957. Survey report by Dick (1963:4) attributed TC:C9:1 designation to another stone masonry structure near TC:C9:19. Unable to provide any information on this other site.

Site designation: TC:C9:2 (Dick-1957) T. 33S, R. 64W, SE NW Sec. 28

Location: On large open mesa overlooking the Purgatoire and Carpios Canyon. On the north side of the Purgatoire, the mesa is fringed with pinyon and juniper. Site elevation is about 6,360 feet which is nearly 250 feet above valley floor.

Site Classification: Historic tepee rings--possibly Apache or Ute.

Basis for classification: Excavation revealed evidence of two tepee rings, but precise cultural and temporal affiliations are not known.

Site history: Surveyed by Dick, 1957. Excavated by Dick, 1957. Reports by Dick (1963:4-5) and this report.

Comments: Dick (1963:5) reports no ceramics recovered and hints of Basket-maker II affiliations. My personal examination of the site and excavational materials forces a different interpretation.

Site designation: TC:C9:3 (Dick-1957) T. 33S, R. 64W, SW NE Sec. 28

Location: On sandstone shelf about 60 feet above Purgatoire flood plain. Site is north of the Purgatoire, west of the mouth of Carpios Canyon, east and below TC:C9:2 and west and above TC:C9:4. Approximate elevation is 6,190 feet.

Site classification: Possible Sopris Phase limited activity area.

Basis for classification: No evidence of architecture--only several hearths and five sherds of locally manufactured Taos Incised. Perhaps occupants of TC:C9:4 structure were responsible for these cultural manifestations.

Site History: Surveyed by Dick, 1957. Reported by Dick (1963:5).

Site designation: TC:C9:4 (Dick-1957) T. 33S, R. 64W, SW SE Sec.28
Location: On narrow sandstone ledge projecting into the Purgatoire Valley from the northwest. Located west of the mouth of Carpios Canyon and site TC:C9:19. Approximately 40 feet above valley floor with an approximate elevation of 6,160 feet.
Site classification: Sopris Phase habitation structure.
Basis for classification: Total reported cultural manifestation.
Site history: Excavated by Dick, Baker and Ireland. Preliminary report by Dick (1963:6). Reporting by Baker (1964, 1967) and Ireland (1970, 1971).
Comments: Baker called this site St. Thomas Phase while Dick and Ireland placed it in Sopris Phase.

Site designation: TC:C9:5 (Dick-1957) T. 33S, R. 64W, SW NW Sec.31
Other designations: TC:C9:17 (Dick 1963:9); TC:C9:144 (Baker-1965).
Location: See excavation report on TC:C9:144 in this manuscript.
Site history: Excavated as site TC:C9:144 and reported here.
Comments: Original site survey card by Dick, 1957 and survey report cultural/temporal affiliation.

Site designation: TC:C9:6 (Dick-1957) T. 33S, R. 64W, SW NW Sec.31
Other designation: TC:C9:144 (Ireland-1972).
Location: Same terrace as TC:C9:144
Site classification: Modern historic "Anglo."
Basis for classification: See Feature 13, TC:C9:144 in this report.
Site history: Surveyed by Dick, 1957 and preliminary report by Dick (1963: 6-7). Reported by Ireland (this report).

Site designation: TC:C9:7 (Dick 1963:7) T. 33S, R. 64W, NW NE Sec. 28
Other designation: TC:C9:7 (Baker-1963) T. 33S, R. 64W, SE NW Sec. 12
Location: Unknown.
Site classification: Unknown.
Site history: Uncertain.
Comments: Dick's preliminary report (1963:7) and site survey card by a Baker-directed survey crew describe two different locations for this site. I am unable to provide any information on location(s), materials collected or classification(s).

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TRINIDAD RESERVOIR SALVAGE ARCHAEOLOGY 1972(U)
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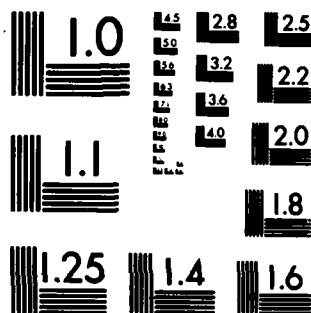
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Site designation: TC:C9:8 (Dick) T. 33S, R. 64W, NW NE Sec. 32

Other designation: Leone Bluff Sites (one of).

Location: On first terrace (alluvial) immediately south of the Purgatoire River between mouths of Carpios Canyon and Reilly Canyon. Other site designations (TC:C9:9, TC:C9:10, TC:C9:11, TC:C9:12 and TC:C9:22) have been applied to other areas of same terrace to the east of this excavated site. Approximate elevation of all is 6,230 feet. About 45 feet above flood plain.

Site classification: Dual occupation/usage. Sopris Phase and Apache.

Basis for classification: Architecture and ceramics indicate a Sopris Phase habitation structure while other ceramics are apparently not associated with any known architecture, but are definitely of Apache origin (Cimarron Micaceous).

Site history: Survey and preliminary report by Dick (1963:7). Excavated by Gullinger in 1967 but unreported.

Site designation: TC:C9:9 (Dick) T. 33S, R. 64W, NW NE Sec.32

Other designation: Leone Bluff Sites (one of).

Location: Immediately NE of TC:C9:8 on edge of same terrace.

Site classification: Sopris Phase habitation structure.

Basis for classification: Total reported excavated cultural manifestations.

Site history: Survey and preliminary report by Dick (1963:7). Some excavation and reporting by Baker (1964, 1967). Additional excavation by Ireland and subsequent reporting (1970, 1971).

Site designation: TC:C9:10 (Dick) T. 33S, R. 64W, NW NE Sec. 32

Other designation: One of Leone Bluff Sites: TC:C9:9B (Ireland 1970).

Location: Immediately NE of TC:C9:9; on edge of same terrace.

Site classification: Sopris Phase habitation structure.

Basis for classification: Excavation in 1970 revealed a single-roomed circular jacal house. Subsequent reporting (Ireland 1973) assigned to Upper Purgatoire Complex, but without Phase assignment. Assigned here to the Sopris Phase on the basis of comparison with TC:C9:20/A-B (this report).

Site history: Survey and preliminary report by Dick (1963:7). Partial excavation by Baker in 1963. Excavation by Ireland in 1970 and reported (Ireland 1973) as site TC:C9:9B.

Site designations: TC:C9:11 and 12 (Dick) T.33S, R. 64W, NW NE Sec. 32

Other designation: Leone Bluff Sites (two of).

Location: East of TC:C9:10 and on same terrace.

Site classification: Uncertain.

Basis for classification: Dick (1963:7) reports indications of Sopris Phase habitation structures, but I am unable to verify this.

Site history: Survey and preliminary report by Dick (1963:7). Uncontrolled excavation by Ireland in 1969 and 1970 did not reveal any evidence of aboriginal occupation.

Site designation: TC:C9:13 (Dick) T. 33S, R. 64W, SW SW Sec. 23

Other designation: TC:C9:102 (Baker).

Comments: See form for site TC:C9:102.

Site designation: TC:C9:14 and 15 T. 33S, R. 64W, ? ? Sec. 23

Location: Precise location unknown. Recorded data indicates these two sites are east of TC:C9:13 and on an alluvial terrace on the south bank of the Purgatoire River.

Site classification: Probably Sopris Phase, but unknown whether habitation and/or limited activity.

Basis for classification: Collected artifacts, which I am unable to locate, include B/w sherds, projectile points, scrapers, manos and metates.

Site history: Survey and preliminary report by Dick (1963:8). Survey cards by Baker (undated). Apparently unexcavated. Reportedly destroyed by gravel operations.

Site designation: TC:C9:16 (Dick) T. 33S, R. 64W, SE NW Sec. 32

Location: A shelter or overhand formed by the sandstone of a high bluff south of the Purgatoire River. It is situated in a short unnamed canyon at an approximate elevation of 6,280 feet.

Site classification: Rock shelter habitation of unknown cultural/temporal affiliations.

Basis for classification: Dick (1963:8) reports three compartments formed by walls constructed of stone. The four sherds from this shelter are unlike any others reported for SE Colorado. All have a smudged exterior and are thin-walled. Three appear to be indented corrugated (largely obliterated) and one has basket impressions on its exterior.

Site history: Survey and preliminary report by Dick (1963:8). In that source Dick does not report its excavation or retrieval of ceramics.

Comments: Baker (1964:15-16) reports that Dick retrieved cordmarked and Santa Fe B/w sherds from this site; a circumstance that cannot be verified. Site has been either excavated or potted.

Site designation: TC:C9:17 (Dick) T.33S, R. 64W, SW NW Sec. 31
Other designation: TC:C9:144 (Baker).
Comments: See form for TC:C9:144 and this report for details of excavation.

Site designation: TC:C9:18 (Dick) T.33S, R. 65W, SW NE Sec. 36
Location: Can locate to quarter section only.
Site classification: Historic Spanish-speaking occupation (Dick 1963:9).
Basis for classification: Dick reports presence of house foundation and Spanish (-American, S.K.I.) made micaceous and Rito Red-on-brown pottery. I am unable to locate either the site or the ceramics.
Site History: Survey and preliminary report by Dick (1963:9). Apparently unexcavated and destroyed.

Site designation: TC:C9:19 (Dick) T. 33S, R. 64W, NE SE Sec. 28
Other designation: Pl or Purgatoire-1 (Chase).
Location: On sandstone ledge bounded by the Purgatoire on the west and south and Carpios Canyon on the north and east. Approximate elevation is 6,180 feet, almost 60 feet above the flood plain of the Purgatoire.
Site classification: Sopris Phase habitation structure. Also evidence of historic Apache.
Basis for classification: Stone masonry with 6-10 rooms. Associated artifacts include Taos B/w, Red Mesa B/w, Taos Incised and Sopris Plain ceramics. Cimarron Micaceous sherds presumably are from the surface collection.
Site history: Excavated by Chase in 1952-53, but unreported. Dick (1963:9) mentions some of above data.
Comments: Artifacts currently on deposit at Trinidad State Junior College, but no field notes, maps or artifact catalogue. Probably the richest Sopris Phase site in terms of artifacts.

Site designation: TC:C9:20 (Dick) T. 33S, R. 64W, NW SE Sec. 28
Other designation: La Pury 6 (Dick) or P6 (Chase)
Location: An alluvial covered terrace at the south bank of the purgatoire opposite sites TC:C9:4. At an approximate elevation 6,150 feet, it lies about 40 feet above the flood plain.
Site classification: 6-8 Sopris Phase habitation structures.
Basis for classification: Total cultural manifestations.
Site history: Excavation by Dick in 1954 and 1957, Baker in 1964 and 1965 and Ireland in 1971 and 1972. All work at this site is reported by Ireland and Wood (1973) and in this report.

Site designation: TC:C9:21 (Dick) T. 33S, R. 64W, Se Se Sec. 28
Location: Dick (1963:10) reports that the site is located in a residential yard on the south side of the Purgatoire River at the east end of the village of St. Thomas and directly opposite TC:C9:19.
Site classification: Uncertain.
Basis for classification: Numerous recent attempts to locate this site failed. Dick reported 6-8 rooms and artifacts that he classed as Sopris Phase. I am unable to locate any of the collected artifacts.
Site history: Survey and preliminary report by Dick (1963:10).
Comments: Dick's verbal site location and coordinates are inconsistent. Both areas were resurveyed in recent years -- without success.

Site designation: TC:C9:22 (Baker). T. 33S, R. 64W, NE NE Sec. 32
Other designation: Leone Bluff Site/Area II (Baker).
Location: On same terrace and east of site numbers TC:C9:8 through TC:C9:12.
Site classification: Uncertainty due to lack of architecture and diagnostic artifacts. Sopris Phase habitation structures adjacent to this designation may account for the few artifacts and one human burial. An Apache derivation cannot be discounted, however, as Cimarron Micaceous sherds (ca. A.D. 1750?-1900?) have been recovered elsewhere on this terrace.
Site history: Excavation by Baker in 1963. Report presently being prepared by Ireland.
Comments: 1963 excavation failed to confirm the presence of tepee rings mentioned in Amendment Number 2, National Park Service Contract Number 14-10-0232-787, dated June 17, 1963.

Site designation: TC:C9:23 (Baker) T. 33S, R. 64W, SW NE Sec. 27
Location: On first alluvial terrace immediately south of the Purgatoire River. The approximate elevation is 6,110 feet above sea level and about 25 feet above the flood plain.
Site classification: Sopris Phase habitation structure.
Basis for classification: Total cultural manifestation as revealed by excavation and reported upon.
Site history: Excavated by Baker in 1963. Preliminary reports by Baker (1964, 1967). Complete excavation report by Ireland (1973).

Site designation: TC:C9:24 (Baker) T. 33S, R. 64W, NW SE Sec. 27
Location: Near the edge of sandstone ledge south of Purgatoire River and site TC:C9:23. At an approximate elevation of 6,215 feet above sea level, it was 130 feet above the flood plain.
Site classification: Sopris Phase habitation structure.
Basis for classification: Total cultural manifestation as revealed by excavation and reported upon.
Site history: Excavated by Baker in 1963. Preliminary reports by Baker (1964, 1967). Complete excavation report by Ireland (1973).

Site designation: TC:C9:25
Location: Unknown.
Comments: Unable to provide any information regarding this site number. Perhaps it is unassigned.

Site designation: TC:C9:26 (Baker) T. 33S, R. 64W, NW SE Sec. 27
Location: About 100 yards SSW of TC:C9:24 and on same terrace.
Site classification: Possible stone walled structure of unknown cultural affiliation.
Basis for classification: Only source of information regarding this site is the original site survey card--mentions possible stone walls (circular and straight).
Site history: Survey by Baker on an unknown date.
Comments: Site destroyed by initial activities associated with the construction of the dam.

Site designation: TC:C9:27
Location: Unknown.
Comments: Unable to provide any information regarding this site number which may be unassigned.

Site designation: TC:C9:28 (Baker) T. 33S, R. 64W, NE NE Sec. 27
Location: South bank of Purgatoire River, on low alluvial terrace opposite mouth of Colorado Canyon and near the entrance of Raton Creek. It is about 20 feet above the flood plain at an approximate elevation of 6,110 feet.

Site classification: Sopris Phase habitation structure.

Basis for classification: Materials currently on deposit at Trinidad State Junior College include Taos (?) B/W and locally produced culinary ware (either Sopris Plain or Taos Incised). Handwritten notes (not field notes) indicates presence of one-roomed stone masonry structure.

Site history: Surveyed by Baker, unknown date. Excavated in 1968 by Gullinger.

Comments: Field notes and some artifacts still in possession of E.L. Gullinger.

Site designation: TC:C9:29 through TC:C9:34
Location: Unable to provide any information.
Comments: Numbers unassigned??

Site designation: TC:C9:35
Location: Unknown.
Site classification: Possible Sopris Phase.
Basis for classification: Only 16 sherds on deposit--locally manufactured Taos Incised and perhaps Sopris Plain.
Site history: Uncertain, no site survey card on file.

Site designations: TC:C9:36 through TC:C9:39
Location: Unable to provide any information.
Comments: Numbers unassigned??

Site designation: TC:C9:40 T. 33S, R. 64W, NE SE Sec. 31
Location: Situated on high terrace overlooking the Purgatoire east of and near the mouth of Long Canyon. Elevation is 6,400 feet above sea level and about 200 feet above the adjacent floor of Long Canyon and the flood plain of the Purgatoire.
Site classification: Sopris Phase habitation structure.
Basis for classification: Materials on deposit include Taos B/W, Taos Incised and Sopris Plain ceramics. Excavation notes reveal stone masonry construction.
Site history: Excavated by Gullinger in 1968.
Comments: 1968 field notes and some artifacts still in Gullinger's possession.

Site designation: TC:C9:41

Location: Unknown.

Site classification: Sopris Phase--possibly habitation structure.

Basis for classification: Materials on deposit include two sherds which are locally manufactured Taos Incised or Sopris Plain, a mano fragment, a fragment of a triangular projectile point or knife and lithic flakes.

Site history: Uncertain.

Comments: No site survey card or written data available on this site.

Site designation: TC:C9:42

Location: Unknown.

Site classification: Uncertain.

Basis for classification: Only materials on deposit are three argillite cores and three argillite flakes.

Site history: Uncertain.

Comments: No site survey card or written data available on this site.

Site designations: TC:C9:43 through TC:C9:49.

Location: Unable to provide any information.

Comments: Numbers unassigned??

Site designation: TC:C9:50 T. 33S, R. 64W, SE NW Sec. 13

Location: In backyard of house with Trinidad street address of 825 Tillotson; west of Trinidad State Junior College campus.

Site classification: Uncertain.

Basis for classification: Site designation made upon the presence of a single B/W sherd. Since this sherd is not currently on deposit at Trinidad State Junior College, no classification can be made.

Site history: Uncertain.

Site designations: TC:C9:51 and TC:C9:52

Location: Unable to provide any information.

Comments: Numbers unassigned??

Site designation: TC:C9:53 (Baker) T. 34S, R. 64W, NE NW Sec. 6

Location: On low terrace on west side of Long Canyon.

Site classification: Historic house structure.

Basis for classification: Remnants of adobe brick walls set upon a stone masonry foundation.

Site history: Survey by Baker in 1964.

Site designation: TC:C9:54 (Baker) T. 34S, R. 64W, ? ? Sec. 6
Location: Unable to precisely locate--on low terrace on west side of creek
in Long Canyon.
Site classification: Historic Apache.
Basis for classification: Presence of Ocate Micaceous sherds.
Site history: Surveyed by Baker in 1964.
Comments: Sherds from surface collection.

Site designation: TC:C9:55 (Baker) T. 33S, R. 64W, NE SE Sec. 22
Location: High bluff (elevation about 6,300 feet) overlooking Purgatoire
from the north.
Site classification: Non-site.
Basis for classification: Site designation based upon sandstone slabs on
surface with no evidence of habitation or other
utilization. Resurvey in 1972 interpreted stone
as naturally fractured and recovered no evidence
of culturally derived materials.
Site history: Survey by Baker in 1963. Resurveyed by Ireland in 1972.

Site designation: TC:C9:56 (Baker) T. 33S, R. 64W, NW NW Sec. 23
Location: Terrace on north side of Purgatoire and north of town of Jansen.
Site is at west edge of terrace and faces an intermittent stream
(arroyo). Elevation about 6,250 feet.
Site classification: Possible boundary marker of historic age.
Basis for classification: No evidence of aboriginal occupation or use.
Only line of dry-laid stone slabs.
Site history: Survey by Baker in 1963; above site classification is his.

Site designation: TC:C9:57 (Baker) T. 33S, R. 64W, NW NW Sec. 23
Location: On edge of same terrace and SE of TC:C9:5.
Site classification: Flint-knapping/observation area of unknown cultural
affiliation.
Basis for classification: No evidence of architecture. Collected speci-
mens are scrapers and lithic debitage.
Site history: Surveyed by Baker in 1963.

Site designation: TC:C9:58 T. 33S, R. 64W, SE SE Sec. 22
Location: Precise location unknown. North of Pacheco School (in Jansen,
Colorado) a specified distance. Other written data less specific.
Site classification: Uncertain.
Basis for classification: Unable to relocate. Materials previously col-
lected are a metate fragment and lithic debitage.
Site history: Survey by Baker in 1963.

Site designation: TC:C9:59 through TC:C9:99
Location: Unable to provide any information.
Comments: Unassigned numbers??

Site designation: TC:C9:100 T. 34S, R. 64W, NW $\frac{1}{4}$ Sec. 5
Location: Site survey card describes as at confluence of Oso and Osito Canyons. However, resurvey in 1972 failed to relocate it in this vicinity.
Site classification: Unknown.
Basis for classification: Site survey card indicated there were at least five major rooms in this stone masonry structure. Only materials collected were a trough metate and lithic debitage.
Site history: Survey card by unknown author and date.
Comments: Resurvey in 1972 failed to locate any evidence of any aboriginal cultures on any side of the confluence of these canyons.

Site designation: TC:C9:101 T. 33S, R. 64W, SW $\frac{1}{4}$ Sec. 23
Location: Same terrace as TC:C9:102--see form for that site. Whether TC:C9:101 is adjacent to TC:C9:102 or TC:C9:101 is an earlier designation for TC:C9:102 is unknown.
Site classification: Unknown.
Basis for classification: Original site criterion unknown. Apparently no specimens collected.
Site history: Site survey card by unknown author and date.

Site designation: TC:C9:102 (Baker) T. 33S, R. 64W, SW SW Sec. 23 and SE SE Sec 22
Other designations: TC:C9:11 and TC:C9:12
Location: Large alluvial terrace on south side of Purgatoire at the east of the entrance of Raton Creek and opposite the mouth of Colorado Canyon. The edge of the terrace approximates 6,100 feet (40-50 feet above flood plain); portions of the terrace are 6,160 feet above sea level.
Site classification: Multiple occupations: Sopris Phase and historic Apache.
Basis for classification: In the absence of well-written excavational summaries, identified ceramics will be used here. Identified ceramics attributable to Sopris Phase are: Taos and Cebolleta B/w, Taos Incised, Sopris Plain and Stamper Cordmarked (assumed trade ware). Apache ceramics are Cimarron Micaceous. The possibility of pit houses exists.
Site history: This site designation given by Baker in 1964. Excavation by Baker in 1964 and by Gullinger in 1968. Preliminary report by Baker in 1964 is in the form of mimeographed "Weekly Reports" which are on file at Trinidad State Junior College.
Comments: Intensive aboriginal occupation of this terrace is obvious. The precise nature and number of structures is not, however.

Site designation: TC:C9:103 (Baker) T. 33S, R. 67W, Sec 23
Other designation: Uncertain
Location: Described only as on the north end of the same terrace as TC:C9:102.
Site classification: Uncertain.
Basis for classification: Apparently no collection of specimens or excavation occurred under this designation.
Site history: Uncertain.

Site designation: TC:C9:104 (Baker) T. 33S, R. 64W, Sec. (uncertain)
Location: Described as gravel quarry near the mouth of Long Canyon (possibly NW NE Sec. 32).
Site classification: Paleontological.
Basis for classification: Fragment of mammoth tusk from gravel deposit.
Site history: Recovered by Baker in 1964. Preliminary report by Baker in Fourth Weekly Report, 1964 (mimeographed, on file at Trinidad State Junior College).

Site designations: TC:C9:105 through TC:C9:110
Location: Unable to provide any information.
Comments: Unassigned numbers??

Site designation: TC:C9:111 (Baker) T. 34S. R. 64W, NE SW Sec. 24
Location: Raton Pass.
Site classification: Without detailed personal examination of original field notes and collected specimens, I am unable to make a classification based upon the report by Baker (1966).
Comments: The above comments apply to most Raton Pass sites (all of which are in that report). All ceramics from the Raton Pass sites that are currently on deposit at Trinidad State Junior College have been examined and are the foundation for the few site classifications I can make.

Site designations: TC:C9:112 through TC:C9:114 (Baker)
Location: All Raton Pass
Site classification: Uncertain.

Site designation: TC:C9:115 (Baker) T. 34S, R. 64W, NW SW Sec. 1

Other designation: Raton Pass Site 17 (Baker).

Location: First terrace above and east of Raton Creek. Site is about 100 feet above the creek bed. Approximate elevation is 6,460 feet above sea level.

Site classification: Multiple occupation. Sopris Phase and Historic Apache.

Basis for classification: Ceramics attributed to Sopris Phase are locally manufactured Taos Incised and Sopris Plain. Apache sherds recovered are Cimarron Micaceous. Baker (1966) was apparently unable to define architecture.

Site designations: TC:C9:116 through TC:C9:129 (Baker)

Location: Raton Pass.

Site classification: Uncertain.

Site designation: TC:C9:130 (Baker) T. 33S, R. 64W, SW Sec. 25

Location: Able to locate to quarter section only.

Site classification: Possible Sopris Phase.

Basis for classification: Two indented blind-corrugated sherds. Baker (1966) does not report any architecture or other evidence of aboriginal occupation at this site.

Site designation: TC:C9:131 through TC:C9:140 (Baker)

Location: Raton Pass.

Site classification: Uncertain.

Site designation: TC:C9:141 (Baker)

Location: Unable to provide any information.

Site classification: Unknown.

Basis for classification: Surface collection: manos and lithic debitage. No indication of architecture.

Site history: Surveyed by Baker in 1964.

Site designation: TC:C9:142 (Baker) T. 33S, R. 64 W, SE $\frac{1}{4}$ Sec. 30

Location: Survey card indicates only: "200 yards north of Viola."

Site classification: Uncertain.

Basis for classification: Surface collection: two corner-notched points, one triangular projectile point or knife, one drill, two scrapers. No evidence of architecture.

Site history: Surveyed by Baker in 1964. Resurveyed in 1972--unable to determine location.

Site designation: TC:C9:143 (Baker) T. 33S, R. 64W, NE SW Sec. 26
Other designation: TC:C9:1 (Dick).
Comments: See form for TC:C9:1.

Site designation: TC:C9:144 (Baker) T. 33S, R. 64W, SW NW Sec. 31
Other designation: TC:C9:5 (Dick), TC:C9:17 (Dick).
Location: Alluvial terrace bounded on the west and south by the Purgatoire River, on the east by Reilly Canyon and on the north by Colorado Highway 12. Sopris Phase structure is approximately 40 feet above the flood plain of the Purgatoire.
Site classification: Sopris Phase habitation structure, evidence of historic Apache, evidence of historic Spanish-American and evidence of recent modern "Anglo."
Basis for classification: For Sopris Phase: house structure and associated artifacts. For Apache: Cimarron Micaceous sherds; no associated architecture. For Spanish-American: Casitas Red-on-brown sherds; not associated with architecture. For "Anglo:" Foundation of house with associated trash of recent origin.
Site history: Survey by Dick in 1957 and by Baker in 1965. Survey report by Dick (1963). Excavated by Ireland in 1972 and reported here.
Comments: This site designation as used by Ireland also includes TC:C9:6 (modern structure) as Feature 13 of TC:C9:144. See excavation report, this manuscript.

Site designation: TC:C9:145 (Baker) T. 33S, R. 64W, NW NW Sec. 31
Location: Terrace bounded by slope of bluff on west, by Reilly Canyon on northeast and by Colorado Highway 12 on the southeast. (Site TC:C9:144 is south of the highway.) The edge of the terrace is 15-25 feet above the floor of Reilly Canyon; approximate elevation is 6,250 feet above sea level.
Site classification: Historic Apache and historic Spanish-American.
Basis for classification: Ceramics (Cimarron Micaceous, Kapo Black and Casitas Red-on-brown) from surface collection with no evidence or architecture associated with either.
Site history: Surveyed by Baker in 1964. Resurveyed by Ireland in 1972.

Site designation: TC:C9:146 (Baker) T. 33S, R. 65W, SE NE Sec. 36
Location: On edge of bluff immediately north of Colorado Highway 12 and the Purgatoire River. Located at east edge of small northward indentation into the bluff at an elevation of 6,340 feet above sea level. Approximately 100 feet above adjacent flood plain.
Site classification: Probable flint-knapping/observation area of unknown cultural origin.
Basis for classification: Surface collection of two scrapers and a large amount of lithic debitage. 1972 resurvey found no indications of possible tepee rings as indicated on original survey card.
Site history: Surveyed by Baker in 1965. Resurveyed by Ireland in 1972.

Site designation: TC:C9:147 (Baker) T. 33S, R. 65W, SW NE Sec. 36
Location: On sloping tongue of land which extends southward to Colorado Highway 12 and the Purgatoire River. Approximate elevation is 6,360 feet above sea level and about 120 feet above the flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Surface indications--manos and lithic debitage. No indication of architecture.
Site history: Surveyed by Baker in 1965. Resurveyed by Ireland in 1972.

Site designation: TC:C9:148 (Baker) T. 33S, R. 65W, SE NW Sec. 36
Location: On narrow southeastward extension of bluff which is contiguous to Colorado Highway 12. The Purgatoire River is immediately south of the highway. Approximate elevation is 6,350 feet above sea level; about 110 feet above flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Surface indications--manos and lithic debitage. No indication of architecture.
Site history: Surveyed by Baker in 1965. Resurveyed by Ireland in 1972.

Site designation: TC:C9:149 (Baker) T. 33S, R. 65W, NW NW Sec. 36
Location: On the same bluff as TC:C9:148, TC:C9:150 and TC:C9:151. TC:C9:149 is NW of TC:C9:148, SE of TC:C9:150 and NE of TC:C9:151. Approximate elevation of 6,420 feet; about 150 feet above flood plain of Purgatoire.
Site classification: Possible work/observation area of unknown cultural origin.
Basis for classification: Unable to relocate in 1972. Original survey collected manos and scrapers and observed lithic debitage.
Site history: Surveyed by Baker in 1965. Resurveyed by Ireland in 1972.

Site designation: TC:C9:150 (Baker) T. 33S, R. 65W, NW NW Sec. 36
Location: Northside of Purgatoire River. See above form for TC:C9:149.
Site classification: Possible work/observation area of unknown cultural origin.
Basis for classification: Unable to relocate in 1972. Original survey collected scrapers and manos.
Site history: Surveyed by Baker in 1965. 1972 resurvey by Ireland.

Site designation: TC:C9:151 (Baker) T. 33S, R. 65W, NW NW Sec. 36
Location: Northside of Purgatoire River. See above form for TC:C9:149.
On SW facing edge of terrace and approximate elevation of 6,400 feet above sea level (about 140 feet above flood plain).
Site classification: Possible work/observation area of unknown cultural origin.
Basis for classification: Collected and observed specimens--scrapers, fragments of projectile point or knife, utilized flakes and lithic debitage. No indications of architecture.
Site history: Surveyed by Baker in 1965. Resurvey in 1972 by Ireland.

Site designation: TC:C9:152 (Baker) T. 33S, R. 65W, NW NW Sec. 36
Location: On edge of bluff facing TC:C9:151.
Site classification: Possible work/observation area of unknown cultural origin.
Basis for classification: Unable to relocate in 1972. Original survey collected a scraper and manos.
Site history: Surveyed by Baker in 1965. Resurveyed by Ireland in 1972.

Site designation: TC:C9:153 (Baker) T. 33S, R. 65W, NW Sec. 35
Location: Unable to provide exact location. Original survey notes only "on bluff overlooking Purgatoire River."
Site classification: Possible work/observation area of unknown cultural origin.
Basis for classification: Unable to relocate in 1972. Collected manos and scrapers in 1965.
Site history: 1965 survey by Baker. Resurvey in 1972 by Ireland.

Site designation: TC:C9:154 (Baker) T. 33S, R. 65W, SE Sec. 33
Location: Survey information inadequate.
Site classification: Uncertain.
Basis for classification: Original survey collected a scraper and a knife.
Site history: Survey by Baker in 1965. 1972 attempts by Ireland to locate failed.

Site designation: TC:C9:155 (Baker) T. 33S, R. 65W, SE SE Sec. 34
Location: On low terrace between Colorado Highway 12 and Purgatoire River immediately west of mouth of Burro Canyon. Elevation about 6,340 feet above sea level. About 40 feet above flood plain.
Site classification: Possible work area of unknown cultural origin.
Basis for classification: Mano and scraper collected in 1965. Reexamination of this terrace failed to produce any evidence of aboriginal occupation.
Site history: 1965 survey by Baker. Resurvey by Ireland in 1973.

Site designation: TC:C9:156 (Baker) T. 33S, R. 65W, SE SE Sec. 34
Location: On same terrace as TC:C9:155 immediately north of Colorado Highway 12.
Site classification: Unknown.
Basis for classification: 1973 resurvey failed to produce any evidence of aboriginal cultures. Original survey collected two manos and a micaceous sherd, the present location of which is unknown.
Site history: Surveyed in 1965 by Baker. Resurvey by Ireland in 1973.

Site designation: TC:C9:157 (Baker) T. 33S, R. 65W, NW SW Sec. 34
Location: Uncertain--original site survey card places it north of the community of Madrid, Colorado which is in Section 35 (not section 34). Other information on site card equally contradictory.
Site classification: Possible work/observation area of unknown cultural origin.
Basis for classification: Original survey party collected a mano and scrapers.
Site history: Survey in 1965 by Baker. Ireland's 1973 re-examination of Sections 34 and 35 north of Highway 12 failed to relocate.

Site designation: TC:C9:158 (Baker) T. 33S, R. 65W, ? ? Sec. 35
Location: Uncertain--original site survey card description is very vague. Apparently at edge of bluff north of the Purgatoire and west of Madrid, Colorado.
Site classification: Possible Sopris Phase habitation.
Basis for classification: Materials collected include manos, metates, scrapers, and an indented blind-corrugated sherd. Unable to locate site in 1973.
Site history: Survey in 1965 by Baker. Ireland could not relocate in 1973.

Site designation: TC:C9:159 (Baker) T. 34S, R. 64W, NW Sec. 36
Location: Able to locate only to quarter section--on east side of Raton
Creek.
Site classification: Unknown.
Basis for classification: Site designation based upon presence of one mano.
Site history: 1965 survey by Baker.

Site designation: TC:C9:160 (Baker) T. 33S, R. 64W, SW NE Sec. 31
Location: On edge of terrace immediately south of Colorado and Wyoming
Railroad track and the Purgatoire River. Terrace of mouth of
Long Canyon and opposite (SE of) the mouth of Reilly Canyon.
Elevation above flood plain of Purgatoire is about 80 feet and
approximately 6,280 feet above sea level.
Site classification: Possible work/observation area of unknown cultural
origin.
Basis for classification: Lithic debitage and manos on surface.
Site history: 1965 survey by Baker. Relocated by Ireland in 1972.

Site designation: TC:C9:161 (Baker) T. 33S, R. 64W, SW NE Sec. 31
Location: Edge of same terrace as and about 100 yards west of TC:C9:160.
Site classification: Probable work/observation area of unknown cultural
origin.
Basis for classification: Surface manifestations in 1965: concentration
of thermal-cracked rocks, lithic debitage and
manos.
Site history: 1965 survey by Baker. Ireland 1972 resurvey.

Site designation: TC:C9:162 (Baker) T. 33S, R. 64W, NW SW Sec. 31
Location: On low terrace SW of TC:C9:144 and south of C & W Railroad
tracks and Purgatoire River.
Site classification: Historic Apache.
Basis for classification: 1965 survey collected Cimarron Micaceous sherds
from the surface. Resurvey collected no new
evidence.
Site history: Baker survey in 1965. Ireland resurvey in 1972.

Site designation: TC:C9:163 T. 33S, R. 64W, NW SW Sec. 31
Location: Described as just west of TC:C9:162. Unable to relocate in 1972.
Site classification: Historic Apache.
Basis for classification: 1965 surface collection consists of one Cimarron
(?) Micaceous sherd and two manos. Resurvey col-
lected no new evidence.
Site history: Survey by Baker in 1965. Resurvey in 1972 by Ireland.

Site designations: TC:C9:164 through TC:C9:166 T. 33S, R. 65W, SW SE Sec.36
Location: These three sites are described on the original site survey cards as being located on high bluffs on both sides of a small side canyon south of the Purgatoire River. However, the location maps on these cards do not agree. Hence, we are unable to plot the location of these sites.
Site classification: Apparently work/observation areas of unknown cultural origin.
Basis for classification: 1965 collections include manos and lithic debitage from each.
Site history: 1965 survey by Baker.

Site designation: TC:C9:167 (Baker) T. 34S, R. 65W, SW SW Sec. 36
Location: On terrace south of Purgatoire River and Madrid Reservoir. Elevation approximately 6,400 feet above sea level and 120 feet above flood plain.
Site classification: Probably work/observation area of unknown cultural origin.
Basis for classification: Mano, lithic cores and debitage collected in 1965.
Site history: Survey in 1965 by Baker. Revisited in 1973 by Ireland.

Site designation: TC:C9:168 (Baker) T. 33S, R. 65W, NW SW Sec. 36
Location: On terrace south of Purgatoire River and Madrid Reservoir. About 1,000 feet WNW of TC:C9:167. Approximately 6,400 feet above sea level; 120 feet above flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Manos and lithic debitage collected in 1965.
Site history: Survey by Baker in 1965.

Site designation: TC:C9:169 (Baker) T. 33S, R. 65W, NE SE Sec. 35
Location: Alluvial terrace south of Purgatoire River and immediately west of Madrid Reservoir. 6,320 feet above sea level. About 50 feet above flood plain.
Site classification: Uncertain--possible habitation of unknown cultural origin.
Basis for classification: Metate fragments, manos and lithic debitage collected in 1965. Unable to relocate specific area in 1973.
Site history: 1965 survey by Baker. Ireland survey general locale in 1973.

Site designation: TC:C9:170 (Baker) T. 33S, R. 65W, NW SE Sec. 35
Location: On terrace south of Purgatoire River and 500 yards west of TC:C9:169. Elevation about 6,300 feet above sea level and 30 feet above flood plain.
Site classification: Uncertain--possible habitation of unknown cultural origin.
Basis for classification: Metate fragment, manos and lithic debitage collected in 1965. Unable to relocate specific area in 1973.
Site history: 1965 survey by Baker. Survey of general locale in 1973 by Ireland.

Site designation: TC:C9:171 (Baker) T. 33S, R. 65W, NW SE Sec. 35
Location: Site survey card placed it 50-100 yard SW of TC:C9:170. Unable to provide more accurate location.
Site classification: Uncertain
Basis for classification: Site designation based upon one mano collected in 1965.
Site history: 1965 survey by Baker.

Site designation: TC:C9:172 (Baker) T. 34S, R. 65W, NE NE Sec. 13
Location: In Long Canyon three miles south of the Purgatoire River. The structure is situated on a small terrace which protrudes into the canyon on its west side. At an elevation of 6,420 feet above sea level, it is about 40 feet above the canyon floor.
Site classification: Sopris Phase habitation structure.
Basis for classification: Multi-roomed stone masonry structure whose contents included Red Mesa (?) B/W, Cebolleta B/W, obliterated corrugated, Taos Incised and Sopris Plain.
Site history: Excavated by Trinidad Archaeological Society in 1965. Unreported.

Site designation: TC:C9:173 (Baker) T. 34S, R. 65W, NE NE Sec. 2
Location: On high terrace on east side of Madrid Canyon. It is about 600 yards south of the Purgatoire Valley. The elevation is approximately 6,500 feet above sea level and nearly 160 feet above the floor of Madrid Canyon.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: One mano and lithic debitage collected.
Site history: Survey in 1965 by Baker.

Site designation: TC:C9:174 (Baker) T. 34S, R. 65W, NW NE Sec. 2
Location: On 6,500 foot high terrace on east side of Madrid Canyon. Site TC:C9:173 is about 500 yards NE.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Survey party observed or collected mano, metate and lithic debitage.
Site history: 1965 survey by Baker.

Site designation: TC:C9:175 (Baker) T. 34S, R. 65W, Sec. 3
Location: Able to locate to section only.
Site classification: Uncertain.
Basis for classification: Materials collected were a mano and lithic debitage.
Original survey card notes: "A possible rock ring."
Site history: 1965 survey by Baker.

Site designation: TC:C9:176 (Baker) T. 34S, R. 65W, Sec. 2
Location: Able to locate to section only.
Site classification: Uncertain.
Basis for classification: Materials observed or collected are burned bone, mano and lithic debitage. Survey card notes: "Rock on rock construction."
Site history: 1965 survey by Baker.
Comments: Ireland is extremely skeptical about the noted "rock-on-rock construction"--an examination of other so-called sites revealed only naturally fractured sandstone slabs.

Site designation: TC:C9:177 (Baker) T. 34S, R. 65W, Sec. 3
Location: Able to locate to section only.
Site classification: Possible flint-knapping area.
Basis for classification: Survey noted only lithic debitage.
Site history: Survey by Baker in 1965.

Site designation: TC:C9:178 (Baker) T. 34S, R. 65W, NE NW Sec. 3
Location: Unable to provide specific information.
Site classification: Possible work area.
Basis for classification: Scraper, cores and lithic debitage collected.
Site history: 1965 survey by Baker.

Site designation: TC:C9:179 (Baker) T. 34S, R. 65W, Sec. 3
Location: Able to locate to section only.
Site classification: Possible work area.
Basis for classification: Mano, cores and lithic debitage collected.
Site history: 1965 survey by Baker.

Site designation: TC:C9:180 (Baker) T. 34S, R. 65W, NW NW Sec. 3

Location: Unable to provide specific information.

Site classification: Possible tepee rings.

Basis for classification: A mano and lithic debitage were collected by survey crew. Survey card notes two rock rings on soil surface. One had a ten foot diameter; the other six feet. No other information available.

Site history: Survey in 1965 by Baker.

Site designation: TC:C9:181 (Baker) T. 33S, R. 64W, NE¹/₄ Sec. 14

Location: Immediately west of city limits of Trinidad, Colorado on geographic prominence known as Prospect Point. The site is on a ledge on the east side at an elevation of 6,300 feet above sea level.

Site classification: Possible work area.

Basis for classification: Only mano collected; no observable architecture.

Site history: Survey by Baker in 1965.

Site designation: TC:C9:182 T. 33S, R. 64W, Sec. 24

Location: Able to locate to section only.

Site classification: Possible work area.

Basis for classification: Only a scraper and debitage were observed.

Site history: Survey card not signed or dated.

Site designation: TC:C9:183 (Baker) T. 33S, R. 64W, NE SW Sec. 22

Location: Floor of Colorado Canyon about 500 yards NW of Colorado Highway 12.

Site classification: Modern historical.

Basis for classification: Modern ceramics and purple glass collected.

Site history: Survey by Baker in 1964.

Site designation: TC:C9:184 (Baker) T. 33S, R. 64W, SW NE Sec. 32

Location: On slope of terrace south of the Purgatoire River. Approximate elevation is 6,270 feet above sea level and about 100 feet above the flood plain.

Site classification: Uncertain--possible pit house.

Basis for classification: Excavation notes and maps and bulk of collected specimens are currently in the possession of Guilingier.

Site history: Surveyed by Baker in 1963. Excavated by Guilingier in 1967. Unreported.

Site designation: TC:C9:185

Location: Unable to provide location; site survey card not on file.

Site classification: Probably Sopris Phase habitation.

Basis for classification: Taos Incised and possibly Sopris Plain sherds from excavation.

Site history: Excavated by Guilinger in 1968. Unreported.

Comments: Excavational documentation (notes, maps and photos) and portion of collected specimens are currently in the possession of Guilinger.

Site designation: TC:C9:186 T. 33S, R. 64W, SE 1/4 Sec. 28

Location: On alluvial terrace south of the Purgatoire River. (Site location data on survey is not more specific.)

Site classification: Uncertain.

Basis for classification: Data and materials currently on file at Trinidad State Junior College are insufficient for evaluation.

Site history: Survey by Baker in 1965. Excavated in 1968 by Guilinger. Unreported.

Comments: Excavational documentation and portion of collected specimens are currently in Guilinger's possession.

Site designation: TC:C9:187

Location: Unable to provide site location; site survey card not on file.

Site classification: Uncertain.

Basis for classification: Data and materials currently on file at Trinidad State Junior College are insufficient for evaluation.

Site history: Excavated in 1968 by Guilinger.

Comments: Excavational documentation and portion of collected specimens are currently in the possession of Guilinger.

Site designation: TC:C9:188 (Baker) T. 33S, R. 64W, SW NW Sec. 32

Location: On bluff (elevation about 6,300 feet) south of Purgatoire and immediately east of mouth of Long Canyon.

Site classification: Modern historic.

Basis for classification: Original survey collected modern earthenware and porcelain as did resurvey.

Site history: 1965 survey by Baker. Resurvey in 1972 by Ireland.

Comments: Resurvey showed shallow trenches, perhaps indicating testing.

Site designation: TC:C9:189 (Baker) T. 33S, R. 64W, SE $\frac{1}{4}$ Sec. 32
Location: Described as a terrace above Jansen (Colorado). Unable to provide more specific data.

Site classification: Unknown.

Basis for classification: Site designation apparently made upon the presence of one "black and red on white sherd." The present location of and precise nature of this sherd is unknown.

Site history: Original survey by Baker, data unknown.

Site designation: TC:C9:190 T. 33S, R. 64W, SW SW Sec. 25
Location: Terrace surface between Interstate 25 (US 85 & 87) and street named Country Club Drive.

Site classification: Unknown.

Basis for classification: Site designation apparently made upon the presence of one "black plainware rim sherd with punctate marks." The present location of and precise nature of this sherd is unknown.

Site history: Survey card by unknown author of unknown date.

Site designation: TC:C9:191
Location: Unable to provide site location; site survey card not on file.
Site classification: Unknown.

Basis for classification: Two manos, one metate fragment and debitage were collected from this site and are currently on deposit at Trinidad State Junior College.

Site history: Unknown.

Site designation: TC:C9:192 (Baker) T. 33S, R. 64W, NW NW Sec. 31
Location: Terrace bounded on the west by Reilly Canyon, on the south by Colorado 12 and the Purgatoire and on the northeast by the slope of a higher terrace. Approximate elevation of 6,270 feet above sea level.

Site classification: Probable work/observation area of unknown cultural origin.

Basis for classification: Mano and lithic debitage collected on original survey. Resurvey did not locate new evidence.

Site history: Survey by Baker in 1965. Resurvey in 1972 by Ireland.

Site designation: TC:C9:193 (Baker) T. 33S, R. 64W, NE NW Sec. 31
Location: On terrace above the Purgatoire River and east of the mouth of Reilly Canyon. Viola Mine is about 200 yards to the east. Elevation about 6,290 feet above sea level; about 90 feet above flood plain.
Site classification: Flint-knapping/observation area of unknown cultural origin.
Basis for classification: Both survey and resurvey recovered lithic debitage from surface.
Site history: Survey by Baker in 1965. 1972 resurvey by Ireland.

Site designation: TC:C9:194 (Baker) T. 33S, R. 64W, NW NE Sec. 31
Location: Edge of terrace north of Purgatoire River about 500 yards SW of Viola Mine. About 6,290 feet above sea level and 90 feet above flood plain.
Site classification: Possible habitation site of unknown cultural affiliation.
Basis for classification: Survey collected lithic debitage. Resurvey located previously unnoted stone circle ca. seven feet in diameter. Walls of stone circle are sandstone slabs two courses high apparently without mortar. Insufficient stone present to suggest walls were once higher. Only lithic debitage associated with the circle. Nature of circle does not suggest tepee ring.
Site history: Survey in 1965 by Baker. Ireland's resurvey in 1972.

Site designation: TC:C9:195 (Baker) T. 33S, R. 64W, SW SW Sec. 29
Location: On high terrace north of the Purgatoire and immediately east of small unnamed canyon. About 6,320 feet above sea level and 140 feet above flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Survey collected only manos and lithic debitage. Resurvey did not locate any surface manifestations.
Site history: Survey in 1965 by Baker. Resurvey by Ireland in 1972.

Site designation: TC:C9:196 (Baker) T. 33S, R. 64W, SE SW Sec. 29
Location: On high terrace north of the Purgatoire. About 6,340 feet above sea level; 160 feet above flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Survey collected only one mano and lithic debitage. Resurvey did not locate any surface manifestations.
Site history: Survey in 1965 by Baker. Resurvey in 1972 by Ireland.

Site designation: TC:C9:197 (Baker) T. 33S, R. 64W, SW SW Sec. 29
Location: On high terrace north of the Purgatoire. About 6,300 feet above sea level; 120 feet above flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Survey collected manos and lithic debitage. Resurvey collected unifacial knife and debitage.
Site history: Survey in 1965 by Baker. 1972 resurvey by Ireland.

Site designation: TC:C9:198 (Baker) T. 33S, R. 64W, NW SE Sec. 29
Location: On high terrace north of the Purgatoire about 25 yards NW of McPherson Mine. Elevation about 6,300 feet above sea level; about 120 feet above flood plain.
Site classification: Uncertain.
Basis for classification: Survey collected mano and lithic debitage. Resurvey collected debitage only and located previously unnoted mounds of sandstone slabs. Both mounds were about five feet in diameter. Their origin and use in unknown.
Site history: Survey by Baker in 1965. Ireland's resurvey in 1972.

Site designation: TC:C9:199 (Baker) T. 33S, R. 64W, NW SE Sec. 29
Location: On high terrace north of the Purgatoire and about 25 yards east of the Fairview Mine. About 6,320 feet above sea level and 160 feet above the flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Survey collection of metate fragments, scrapers and lithic debitage. Resurvey did not observe additional evidence.
Site history: 1965 survey by Baker. 1972 resurvey by Ireland.

Site designation: TC:C9:200 (Baker) T. 33S, R. 64W, NE SE Sec. 29
Location: On high terrace north of the Purgatoire and immediately west of the mouth of Levisa Canyon. Approximately 6,320 feet above sea level; 160 feet above flood plain.
Site classification: Probable campsite of unknown cultural origin.
Basis for classification: Survey collection of mano, scraper and lithic debitage. Examination of area in 1972 revealed concentration of thermal-cracked rocks and diffuse charcoal two inches below soil surface.
Site history: 1965 survey by Baker. 1972 resurvey by Ireland.

Site designation: TC:C9:201 (Baker) T. 33S, R. 64W, NW SW Sec. 28
Location: High terrace north of the Purgatoire at the mouth of Levea Canyon. About 6,400 feet above sea level and 260 feet above flood plain.
Site classification: Probable work/observation area of unknown origin.
Basis for classification: Survey collected a mano and lithic debitage.
Site history: Survey by Baker in 1965.

Site designation: TC:C9:202 (Baker) T. 33S, R. 64W, SW NW Sec. 27
Location: High terrace north of Purgatoire and east of mouth of Carpios Canyon. Approximately 6,220 feet above sea level; 120 feet above flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Survey collected a mano, utilized flakes and lithic debitage.
Site history: 1965 survey by Baker.

Site designation: TC:C9:203 (Baker) T. 33S, R. 64W, SE SW Sec. 22
Location: High terrace north of the Purgatoire and SW of the mouth of Colorado Canyon. Elevation about 6,320 feet above sea level. Height above flood plain approximately 220 feet. Site TC:C9:204 is about 500 feet NE and 100 feet lower in elevation.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Collected specimens: mano, knife and lithic debitage.
Site history: 1965 survey by Baker.

Site designation: TC:C9:204 (Baker) T. 33S, R. 64W, SW SE Sec. 22
Location: Terrace north of the Purgatoire and SW of the mouth of Colorado Canyon. Approximately 6,220 feet above sea level; 120 feet above the flood plain.
Site classification: Probable flint-knapping/observation area of unknown cultural origin.
Basis for classification: Only surface indications were lithic debitage.
Site history: Survey in 1965 by Baker.

Site designation: TC:C9:205 (Baker) T. 33S, R. 64W, SW SE Sec. 22
Location: Low terrace north of Purgatoire at the SW edge of the mouth of Colorado Canyon. Elevation about 6,140 feet above sea level. Nearly 50 feet above the flood plain.
Site classification: Probable work/observation area of unknown cultural origin.
Basis for classification: Only surface manifestations are lithic debitage.
Site history: Survey by Baker in 1965. Revisited by Ireland in 1973.

Site designation: TC:C9:206 (Baker) T. 33S, R. 64W, NE $\frac{1}{4}$ Sec. 22
Location: Described as on a high terrace north of Jansen, Colorado. Unable to provide more accurate location data.
Site classification: Possible work/observation area of unknown cultural origin.
Basis for classification: Mano and scrapers collected by survey crew.
Site history: 1965 survey by Baker.

Site designation: TC:C9:207 (Baker) T. 33S, R. 64W, NE $\frac{1}{4}$ Sec. 22
Location: Low terrace north of Highway 12 and Purgatoire River. Unable to provide more specific location data.
Site classification: Probable work area.
Basis for classification: Mano, metate and lithic debitage collected. No indications of associated architecture.
Site history: Survey by Baker in 1965.

Site designation: TC:C9:208 (Baker) T. 33S, R. 64W, SE NE Sec. 22
Location: Sloping terrace north of the Purgatoire and north and east of the town of Jansen. At an elevation of 6,180 feet above sea level, the area is protected on three sides by the slope of a higher terrace.
Site classification: Probable work area.
Basis for classification: Manos, metates, and scrapers collected. No indication of architecture.
Site history: 1965 survey by Baker.

Site designation: TC:C9:209 (Baker) T. 33S, R. 64W, NW $\frac{1}{4}$ Sec. 23
Location: Low terrace north of Colorado 12 and Purgatoire River between Jansen and Trinidad. Unable to provide more specific location data.
Site classification: Possible work area of unknown cultural origin.
Basis for classification: Survey collected mano, metate and lithic debitage.
Site history: 1965 survey by Baker

Site designation: TC:C9:210 (Baker) T. 33S, R. 64W, NE NW Sec. 23 and
T. 33S, R. 64W, SE SW Sec. 14

Location: On high terrace north of the Purgatoire adjacent (west) of mouth
of Prospect Canyon. Elevation about 6,200 feet above sea level;
about 150 feet above flood plain.

Site classification: Probable work/observation area of unknown cultural
origin.

Basis for classification: Survey collected mano and lithic debitage.

Site history: Survey in 1965 by Baker.

Site designation: TC:C9:211 (Baker) T. 33S, R. 64W, NE NW Sec. 23

Location: Terrace north of Purgatoire and west of Prospect Canyon. About
6,100 feet above sea level; 50 feet above flood plain.

Site classification: Probable work area of unknown cultural origin.

Basis for classification: Survey collected a mano and lithic debitage.

Site history: 1965 survey by Baker.

Site designation: TC:C9:212 (Baker) T. 33S, R. 64W, NE NW Sec. 23

Location: About 200 yards east of and on same terrace as TC:C9:211. Ele-
vation approximately 6,120 feet above sea level; 80 feet above
the flood plain.

Site classification: Survey collected a metate and lithic debitage.

Site history: Survey in 1965 by Baker.

Site designation: TC:C9:213 through TC:C9:218

Location: Unable to provide any information. Site survey cards not on file.

Site designation: TC:C9:219 (Baker) T. 33S, R. 64W, NW SW Sec. 31

Location: On terrace 60 feet above and south of the Purgatoire River op-
posite the mouth of Reilly Canyon. Approximate elevation 6,280
feet.

Site classification: Possible dual occupation--historic Apache and Spanish-
American.

Basis for classification: Original survey collected manos, metates, lithic
debitage, Cimarron Micaceous sherds and Casitas
Red-on-buff sherds. Survey cards note: "Two
possible structures." Whether the statement
was based upon ceramics or physical evidence
of architecture is unknown. Resurvey did not
locate any cultural evidence in this area.

Site history: 1965 survey by Baker. 1972 resurvey by Ireland.

Site designation: TC:C9:220 (Baker) T. 33S, R. 64W, NE SE Sec. 36
Location: On second terrace 180 feet above and south of the Purgatoire opposite the mouth of Reilly Canyon. This site is about 100 yards SW of TC:C9:219. Elevation about 6,400 feet above sea level.

Site classification: Probable work/observation area of unknown cultural origin.

Basis for classification: Survey collected mano, scrapers, knife and lithic debitage. Resurvey either collected nor observed new evidence.

Site history: Survey by Baker in 1965. Resurvey in 1972 by Ireland.

Site designations: TC:C9:221 through TC:C9:235

Location: Unable to provide any information. Site survey cards not on file.

Site designation: TC:C9:236 (Baker) T. 33S, R. 64W, NW NW Sec. 23

Location: On slope of terrace north of the Purgatoire. Elevation about 6,220 feet above sea level; about 160 feet above flood plain.

Site classification: Probable flint-knapping/observation area of unknown cultural origin.

Basis for classification: Only lithic debitage observed. Revisit produced no new evidence.

Site history: 1965 survey by Baker. 1973 resurvey by Ireland.

Site designation: TC:C9:237 (Baker) T. 33S, R. 64W, SW NW Sec. 23

Location: Edge of terrace 40 feet above and north of the Purgatoire. Approximately 6,100 feet above sea level.

Site classification: Probable work area of unknown cultural origin.

Basis for classification: Only metate and lithic debitage collected or observed. Revisit produced no new evidence.

Site history: Survey by Baker in 1965. Resurvey by Ireland in 1973.

Site designation: TC:C9:238 (Baker) T. 33S, R. 64W, NE NW Sec. 23

Location: Terrace north of the Purgatoire. About 30 feet above the flood plain at an approximate elevation of 6,090 feet above sea level.

Site classification: Probable work area of unknown cultural origin.

Basis for classification: Survey collected manos, metates, scrapers and lithic debitage. Resurvey of this general area failed to observe any evidence of aboriginal culture.

Site history: 1965 survey by Baker. 1973 resurvey by Ireland.

Site designations: TC:C9:239 through TC:C9:300
Location: Site survey cards not on file.
Comments: Apparently unassigned numbers.

Site designation: TC:C9:301 T. 33S, R. 64W, SW NW Sec. 26
Other designation: Uncertain.
Location: High terrace immediately west of Raton Creek and immediately south of the Purgatoire River. Elevation is approximately 6,220 feet above sea level. It is about 80 feet above Raton Creek and 140 feet above the flood plain of the Purgatoire.
Site classification: Possible Apache campsite.
Basis for classification: Survey card indicates manos, metates, projectile points and "Apache pottery" were collected. The identity of the ceramics is not subject to verification as their present location is unknown.
Site history: Survey card and collection by Morris F. Taylor, 1952.
Comments: Previous site designation has been erased and is illegible. The assigner and date of current designation are unknown.

Site designation: TC:C9:302 (Ireland) T. 33S, R. 64W, NW NW Sec. 33
Location: Terrace about 50 feet above and south of the Purgatoire River. The terrace is opposite the mouth of Levisa Canyon and had an approximate elevation of 6,200 feet.
Site classification: Human burials--possibly Sopris Phase.
Basis for classification: Both burials were within the basal remnants of roasting (baking) pits. Commercial gravel operations had removed the overlying strata and any possible house structure. Non-diagnostic bone and shell beads associated with one skeleton. These burials are believed to be similar to the subfloor roasting pit burial at TC:C9:9.
Site history: Excavation by Ireland in 1970. Reported by Ireland (1973). Osteological analysis by Wood and Ireland (this report).

Site designation: TC:C9:303 (Ireland) T. 33S, R. 64W, SW SW Sec. 26

Location: On terrace between Frisco Canyon and Raton Creek at their confluence. Approximate elevation of 6,260 feet above sea level; about 80 feet above Raton Creek.

Site classification: Tepee ring of unknown cultural origin.

Basis for classification: U-shaped stone ring open on east side, approximate inside diameter 11 feet and approximate outside diameter 20 feet. Testing produced no evidence of a firepit; only three argillite flakes one of which had been utilized as a knife.

Site history: Survey by Ireland in 1972.

Site designation: Running Pit House Site T. 33S, R. 65W, NE SW Sec. 3

Location: Terrace between Reilly Canyon and Mulligan Canyon at their confluence. Approximately 6,700 feet above sea level; 35 feet above adjacent canyon floors.

Site classification: Habitation structures--probably pre-Sopris Phase Southwestern.

Basis for classification: Similarities to Basketmaker (Anasazi) pit houses. Unfortunately, no ceramics were found associated with these four contiguous pit houses to confirm this cultural affiliation or the date of occupation.

Site history: Excavated in 1954 and 1955 by Dick. Excavation report in this manuscript.

Summary and Conclusions

The earliest evidence for man's occupation of this small geographical region is from the Running Pit House Site. The four Basketmaker pit houses at this site have not been accurately dated but may date back to the seventh century A.D. Other pit houses may have existed at TC:C9:102 and/or TC:C9:184; both sites are yet unreported. The Running Pit House Site is located in Reilly Canyon (one of the widest side canyons of the upper Purgatoire) at the confluence of Mulligan Canyon. Both TC:C9:102 and TC:C9:184 are on the south bank of the Purgatoire River. All three are situated above the flood plain: Running Pit House by 35 feet, TC:C9:102 by about 45 feet and TC:C9:184 by 100 feet. The latter site is nearly 1,000 yards removed from the flood plain while the other two sites are literally a stones throw away from the adjacent flood plain. The occupants of Running Pit House Site raised corn, hunted deer, rabbit and bird, and presumably collected wild food plants as well. The economic pursuits of the occupants of the possible pit houses at TC:C9:102 and TC:C9:184 are presently unknown.

The period of greatest settlement in the Trinidad Reservoir region occurred during the Sopris Phase, A.D. 1150 to 1250 or 1300 (Ireland 1971:50). Twenty sites have been classed as exhibiting a minimum of 24 habitation structures of this phase. The following summarizes data pertinent to these 20 sites.

Site TC:C9:	Drainage and Side	# of house structures	Height above flood plain (ft)	Comments
4	Purgatoire--north	1	40	At mouth of Carpio Canyon
19	Purgatoire--north	1	60	At mouth of Reilly Canyon
144	Purgatoire--north	1	40	
		1 + ?		
8	Purgatoire--south	1	45	
9	Purgatoire--south	1	45	
9B(10)	Purgatoire--south	6 + 2?	45	
20	Purgatoire--south	1	40	
23	Purgatoire--south	1	25	
24	Purgatoire--south	1	130	
28	Purgatoire--south	1	20	At mouth of Raton Creek
		1		
40	Purgatoire--south	1 + ?	200	At mouth of Long Creek
102	Purgatoire--south	1	45	At mouth of Raton Creek
1	Raton Creek--east	1	100	
115	Raton Creek--east	1	100	
130	Raton Creek??	1	?	
172	Long Canyon--west	1	40	
35	Unknown	1	?	
41	Unknown	1	?	
185	Unknown	?	?	
302	Purgatoire--south		50	Presumed house destroyed

The preferred location for habitation appears to be the low terraces immediately above the Purgatoire River (15 structures). Two others (TC:C9:24 and TC:C9:40 are on the Purgatoire, but at considerably higher elevations above the flood plain. Of these 17 known houses, 14 are south of the river. An examination of a topographic map of this portion of the Purgatoire reveals that the greatest proportion of low-lying level geographical prominences are situated south of the river. A very similar topographic situation occurs on Lower Ponil Creek at the southern edge of the Park Plateau for which Glasgow (1970) has reported a very similar distribution of sites of the same approximate time span. These late prehistoric habitation sites on both the Purgatoire River and Ponil Creek will be discussed later. Two structures and possibly a third are

situated on high terraces above Raton Creek, a southern tributary of the Purgatoire. One Sopris Phase house is situated on a low terrace in Long Canyon, also a southern tributary of the Purgatoire. The waterway(s) upon which three of the habitation sites are located is unknown.

Three of the Trinidad Reservoir sites have been classed as tepee rings and a fourth may exist. Precise location data is lacking for two of the sites. The other two are situated on high terraces, one immediately north of the Purgatoire, the other at the confluence of Raton Creek and Frisco Canyon.

Site TC:C9:	Drainage	# of rings	Height above flood plain (ft)	Comments
2	Purgatoire	2	250	Inside diameters: ca. 16 & 19 ft.
22	Purgatoire	uncertain	uncertain	
180	Purgatoire	2	uncertain	Diameters: ca. 6 & 10 ft.
303	Raton & Frisco	1	80 (Raton Ck)	Inside diameter: ca. 11 ft.

An absence of associated diagnostic artifacts precludes positive statements regarding the cultural or temporal affiliations of these tepee rings. The disparity of sizes may indicate both pre- and post-horse eras are represented, however.

The presence of Apache Indians in the Trinidad Reservoir area in historic times is evidenced by ceramics. The ceramics, of two named types, have been retrieved from 10 locations and cannot as yet be associated with architecture. Ocate Micaceous, A.D. 1550? - 1705? (Gunnerson 1969:26-27), was recovered from one site while Cimarron Micaceous, A.D. 1970? - 1900? (Gunnerson 1969: 33-34), was found at nine sites (both types were retrieved from TC:C9:102). Nine of the 10 sites are on low terraces. Seven are located on the Purgatoire, one in Reilly Canyon at its entrance into the Purgatoire,

one in Long Canyon and one on Raton Creek. Five of those exhibiting Cimarron Micaceous are clustered near the mouth of Reilly Canyon in a radius of Approximately 300 yards.

Site TC:C9:	Ceramic Type	Drainage	Height above flood plain (ft)	Comments
54	Ocate	Long Canyon	20-60?	Survey noted: "On low terrace."
8	Cimarron*	Purgatoire	45	
19	Cimarron*	Purgatoire	60	At mouth of Carpios Canyon
102	Cimarron*	Purgatoire	45	At mouth of Raton Creek
144	Cimarron*	Purgatoire	40	At mouth of Reilly Canyon
145	Cimarron*	Reilly Canyon	40	At entrance into Purgatoire
162	Cimarron	Purgatoire	20	Opposite Reilly Canyon
163	Cimarron	Purgatoire	20	Opposite Reilly Canyon
219	Cimarron*	Purgatoire	60	Opposite Reilly Canyon
115	Cimarron*	Raton Creek	100	

*Indicates other ceramic types were also present.

Interestingly each of the seven multicomponent sites in the reservoir area contained Cimarron Micaceous. Five are also classed as Sopris Phase sites (TC:C9:8, 19, 102, 115, and 114). Sites TC:C9:144, 145 and 219 also displayed a Spanish-American ware, Casitas Red-on-buff.

Five reservoir area sites are of unusual nature. TC:C9:16 is the only inhabited rock shelter noted in the immediate vicinity of the reservoir. The present level of knowledge of archaeology in southeastern Colorado and contiguous regions is insufficient to permit statements regarding the origin of the occupation of this rock shelter. The designation TC:C9:104 was given to a Pleistocene gravel deposit that yielded

fragments of mammoth tusk. The taxonomic classification of such extinct animals is apparently in a state of confusion, but some would call this specimen Elephas jeffersoni. TC:C9:194 does not resemble any known habitation site in the reservoir area. A stone circle about seven feet in diameter and composed of two courses of dry-laid stones, it is reminiscent of sites located on the edges of deep canyons in southeastern Colorado especially the Apishapa Canyon about 50 miles northeast of this site. These High Plains sites have been grouped in the Apishapa Focus (Withers 1954) and are believed to be related to the Panhandle Aspect of the Southern Plains. Unfortunately, the only cultural debris at TC:C9:194 was lithic debitage which does not permit affiliation with any known culture. Site TC:C9:200 presents the appearance of a campsite of unknown cultural origin. A mano, scraper and lithic debitage were found near a concentration of thermal-cracked rocks and subsurface charcoal 160 feet above the Purgatoire at the mouth of Levisa Canyon. While the specimens collected at TC:C9:200 have been observed in similar locations in the reservoir area, this is the only known instance of association with charcoal and thermal-cracked rocks. Site TC:C9:301 is on a high terrace overlooking the Purgatoire River and Raton Creek. The "Apache pottery" collected in 1952 cannot be located for verification of cultural origin. If these collected ceramics were of Apache derivation, their location high above the flood plain would be inconsistent with the distribution of Apache ceramics in the reservoir area.

Forty-five sites have been variously classed as limited activity areas (i.e., evidence of utilization by aboriginal man in a non-habitational manner). Nine, termed "flint-knapping/observation areas," demonstrated only lithic debitage and are topographically situated to command

a view. Each of the nine is located on the north side of the Purgatoire Canyon. Four are on terraces less than 50 feet above the flood plain; five are at higher elevations (90-200 feet). Five are located at the junction of side canyons and possess a view up those canyons as well as both up and down the Purgatoire.

Site TC:C9:	Height above flood plain (ft)	Comments
144, F.14	45	At mouth of Reilly Canyon
144, F.16	30	At mouth of Reilly Canyon
144, F.17	30	At mouth of Reilly Canyon
205	50	At mouth of Colorado Canyon
204	120	At mouth of Colorado Canyon
57	200	
146	100	
193	90	
236	160	

Twenty-seven of the limited activity sites have been termed "work/observation areas." The surface collection for each typically includes a mano and lithic debitage and, occasionally, a metate and chipped stone tools. Each site is situated so as to command a view of the Purgatoire Canyon and in some instances a side canyon also. These areas are characteristically on the edge of a terrace 100 feet or more above the adjacent canyon floor. Nineteen are on the north side of the Purgatoire; four at the mouth of a secondary canyon. Five are on the south side of the Purgatoire; three at the mouth of a side canyon. Two are located on a small side canyon, but possess views of the Purgatoire Canyon. The precise location of one is unknown.

Site TC:C9:	Drainage--side	Height above flood plain (ft)	Comments
192	Purgatoire--north	60	At mouth of Reilly Canyon
201	Purgatoire--north	260	At mouth of Levisa Canyon
202	Purgatoire--north	120	At mouth of Carpios Canyon
203	Purgatoire--north	220	At mouth of Colorado Canyon
147	Purgatoire--north	120	
148	Purgatoire--north	110	
149	Purgatoire--north	150	
150	Purgatoire--north	150	
151	Purgatoire--north	140	
152	Purgatoire--north	140	
153	Purgatoire--north	100?	
181	Purgatoire--north	300	
195	Purgatoire--north	140	
196	Purgatoire--north	160	
197	Purgatoire--north	120	
198	Purgatoire--north	120	
199	Purgatoire--north	160	
206	Purgatoire--north	150?	
210	Purgatoire--north	150	
160	Purgatoire--south	80	Mouth of Long Canyon; opposite Reilly Canyon
161	Purgatoire--south	80	Mouth of Long Canyon; opposite Reilly Canyon
220	Purgatoire--south	180	Opposite Reilly Canyon
167	Purgatoire--south	120	
168	Purgatoire--south	120	
173	Madrid Canyon--east	160	
174	Madrid Canyon--east	120	
182	Purgatoire--south	?	Precise location unknown

Nine of the limited activity sites have been termed "work areas."

Each presents the appearance of an area where certain economic tasks were performed. The location of these areas does not suggest that they were selected for purposes of observation. All are on the north side of the Purgatoire and are typically a short distance above the flood plain. The surface materials collected (and the number of sites represented) are: manos (seven), metates (six), scrapers (three) and lithic debitage (six). The cultural origin is known for only one site: TC:C9:3. This particular site,

whose only cultural manifestations were several hearths and Taos Incised sherds, is associated with the Sopris Phase.

Site TC:C9:	Height above flood plain (ft)
3	60
155	40
207	40?
208	100
209	20-40?
211	30
212	80
237	40
238	40

The various limited activity areas form an almost continuous series on the north side of the Purgatoire from the west limits of the City of Trinidad westward nearly eight miles. Only seven limited activity areas have been designated for the south side including the two in a side canyon. This north-south dichotomy is probably due to the topography, to investigational bias and to recent cultural activities. Over 30 of the limited activity areas are elevated above and a short distance from the floor of the Purgatoire Canyon. Such locations are topographically rare on the south of this portion of the Purgatoire. Limited activity areas associated with the Sopris Phase houses on the low terraces on the south bank of the Purgatoire have not been recognized with separate site designations. Also, recent settlement and transportation systems have undoubtedly destroyed and masked sites of all known types on the low terraces on both sides of the river.

Three sites yielded Spanish-American ceramics. Casitas Red-on-brown, A.D. 1672 to ca. 1890 (Dick 1968:80-81), was found on the soil surface at TC:C9:144, TC:C9:145 and TC:C9:219. Kapo Black, ca. A.D. 1700 to present (Dick 1968:82-83), is from TC:C9:145 also. None of these ceramics can be associated with any architecture. At all three locations Apache Cimarron Micaceous sherds were found nearby and also on the surface. Though a positive association cannot be made, it would seem possible that the three ceramic types were in these instances utilized and deposited by the same people. Regardless, these three sites are within a linear distance of 2,000 feet of each other. TC:C9:144 and TC:C9:145 are on the low terrace that projects into the Purgatoire Canyon from the west side of Reilly Canyon. On the south side of the Purgatoire, TC:C9:219 is opposite the other two sites and approximately 20 feet higher in elevation (about 60 feet above the flood plain).

Five sites have been classed as modern historic. Four (TC:C9:53, TC:C9:144, TC:C9:183 and TC:C9:186) display the foundations of house walls. None could be considered atypical or unusual for this geographic area. The line of stones at TC:C9:56 has been interpreted as a property line marker.

In the over 100 square miles covered by site designation grid C9, several designations were changed or reassigned and many were apparently never assigned. TC:C9:5, TC:C9:6 and TC:C9:17 were early numbers applied to archaeological manifestations at TC:C9:144. Designations TC:C9:13 and 102 were both applied to the same site as were TC:C9:1 and TC:C9:143. Site TC:C9:301 apparently had an earlier, but unknown designation. One hundred fifty site numbers are seemingly unassigned. Using only the suffixes or consecutive number position, these designations are: 27, 29-34, 36-39,

43-49, 51, 52, 59-99, 105-110, 213-218, 221-235 and 239-300.

The collected specimens and recorded data for 67 sites were insufficient for classification. In many such cases, the precise locations of the sites are unknown and in other instances the 1972 resurvey failed to verify the presence of archaeological manifestations in the described locations. Also, most of the designations assigned to Paton Pass sites were not classified because of insufficient or conflicting data.

Intensive survey in southeastern Colorado and northeastern New Mexico is nearly unknown and excavation rare. Comparison of the Trinidad Reservoir area sites can be made with those on the upper Canadian River drainage in the southern Park Plateau. Archaeological investigation there and subsequent reporting by Lutes (1957a, 1957b, 1958, 1959, 1960), Baker (1962, 1963) and Glassow (1967, 1970) have clearly demonstrated the presence of the same Southwestern peoples that prehistorically inhabited the upper Purgatoire drainage. Evidence of protohistoric and historic Apache occupation is also present in northeastern New Mexico (Gunnerson 1959, 1969 and Glassow 1967).

Pit houses, though rare, have been reported for the southern Park Plateau in the Philmont Scout Ranch area. These Basketmaker manifestations in northeastern New Mexico probably date between A.D. 900 and 1100. Survey and excavational data gives little indication of occupation of the Trinidad Reservoir area prior to ca. A.D. 1150. The most substantial proof of this era is the Running Pit House Site; TC:C9:102 and TC:C9:184 may also demonstrate excavated pit houses but are unreported. The occupation of the four pit houses at the Running Pit House site would presumably date in the same time span as the southern Park Plateau pit houses. Earlier southern plateau

Basketmaker sites contain circular rock-walled houses on high geographical prominences. These earlier sites yield evidence of a hunting (and gathering?) economy supplemented by maize horticulture and may date as early as A.D. 500; they are apparently without counterpart on the Purgatoire and its tributaries. Evidence of Basketmaker occupations on the Park Plateau north of the Running Pit House Site are unknown.

The various waterways in the Philmont area exhibit a seemingly continuous chronological series of Southwestern sites, ca. A.D. 500-1300. The majority postdate ca. A.D. 1100; by ca. A.D. 1300 northeastern New Mexico was devoid of these Puebloan peoples. A study of the distribution of these late Puebloan habitation sites on Poncil Creek by Glassow (1970) revealed that nearly all are located on the edge of the first terrace above the alluvial bottomlands, and nearly all are on the northeastern side of the creek. Analogous distributions are found on two other Philmont area waterways (Cimarron Creek and Vermejo Creek). In that source Glassow hypothesized that two primary variables operated in the selection of site location: accessibility to arable land and firewood.

The upper Purgatoire River Sopris Phase sites are roughly contemporaneous with these Philmont area sites and are unquestionably of the same cultural derivation. The physical setting in these two areas is nearly identical and the location of sites is too. Physically the major difference between the canyons of the upper Purgatoire and Vermejo, Ponil and Cimarron Creeks is one of magnitude; the Purgatoire Canyon possesses the same or greater breadth for a greater length. The Sopris Phase sites are a greater distance from the Plains than are the Philmont area sites, however. Plausible explanations for this difference in site distribution can

be offered: 1) the City of Trinidad lies at the mouth of the Purgatoire Canyon--Sopris Phase habitation sites may have been destroyed or hidden and 2) following Glassow's hypothesis, the more interior location of the known Sopris Phase sites would have afforded as much arable land as a downstream (towards Trinidad and the Plains) location and with easier access to a greater amount of wood for fire and house construction. Each may be partial explanation but subjectively I favor the application of Glassow's hypothesis. Regardless, nearly all of the Sopris Phase sites, like the Philmont sites, are located near the edge of the first level geographical prominence above the flood plain and nearly all are on one side (south) of the Purgatoire. The bulk of the low-lying level terraces and benches are on the south side of the Purgatoire; and analogous situation exists in the canyons of the Philmont area. The distribution of these landforms is believed to be a factor in the distribution of small Puebloan sites in both areas.

Sites of Southwestern origin are apparently rare to non-existent elsewhere in southeastern Colorado and northeastern New Mexico though intensive systematic surveys have not been undertaken to verify this. Certainly no concentration of Southwestern sites comparable to the known Sopris Phase sites exists elsewhere in southeastern Colorado. Thus it appears that the Running Pit House Site and the Sopris Phase sites represent the northeastern frontier for the Rio Grande Anasazi during the Basketmaker and Pueblo periods.

The presence of Apaches in the upper Purgatoire Canyon during the protohistoric and historic periods has been documented through ceramics. To judge from the limited data available, Apache occupation of the upper Purgatoire was greater historically than the protohistoric period. Seemingly

the preferred site location for both periods was a low terrace of the Purgatoire adjacent to a side canyon; many of these locations also bear Sopris Phase house structures. None of the upper Purgatoire Apache ceramics have been associated with architecture however. Elsewhere in southeastern Colorado there is ceramic evidence for Apache occupation of both periods. None of these sherds collected from the soil surface can presently be associated with architectural remnants. Fragments of Apache ceramics on deposit at Trinidad State Junior College that are of historic age have been retrieved from southeastern Colorado High Plains locations on the Apishapa River (like the Purgatoire, a southern tributary of the Arkansas River) and the Purgatoire and some of its southern tributaries. Apache ceramics of historic age have been recovered from locations on the Purgatoire and its southern tributaries on the Park Plateau at higher elevations than the Trinidad Reservoir. The paucity of data accompanying these survey collections hinders statements regarding Apache settlement patterns in southeastern Colorado. However, it is evident that they exploited both the plateau and plains environments.

Fieldwork by Gunnerson and Glassow in northeastern New Mexico has documented the presence of Apache; living prehistorically in multi-roomed houses of coarsed adobe and pit houses and historically in tepees. No comparison of Apachean archaeological manifestations in New Mexico and Colorado will be attempted here.

Three Trinidad Reservoir sites yielded historic Spanish-American ceramics. The Trinidad, Colorado region is given as the northeastern limit of geographical distribution for these wares by Dick (1968).

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